People & the Planet

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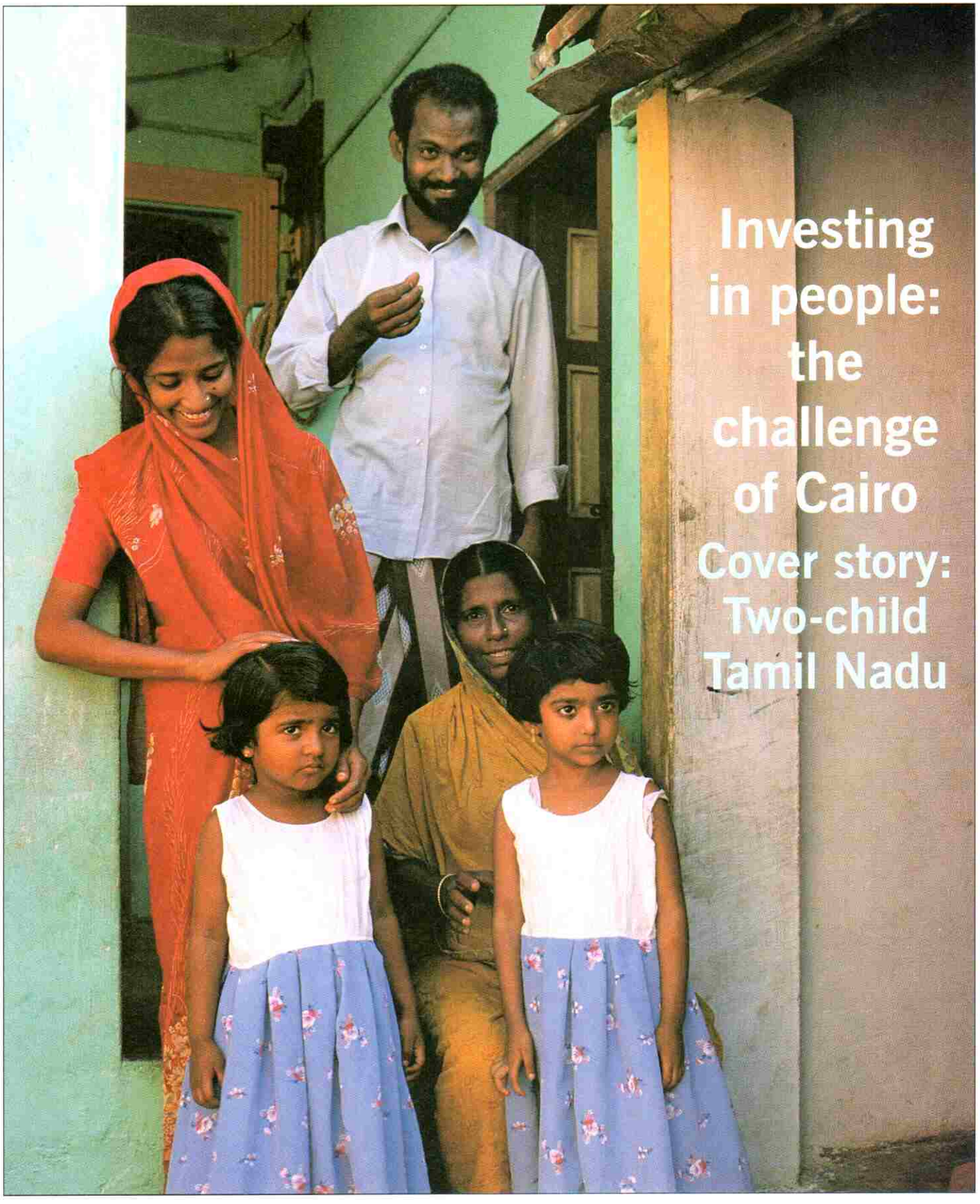

Investing in people: the challenge of Cairo

Cover story: Two-child Tamil Nadu

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SANJEEV SAITH

Left: *Wolyta, Ethiopia: four-year-old Teshome Toma in the arms of his older brother who has looked after him since his mother's death.*
JENNY MATTHEWS/IPPF

People & the Planet

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Investing in people

Preparations for the International Conference on Population and Development, to be held in Cairo in September, have been long and thorough, culminating in a third and final Preparatory Committee meeting in New York in April. Fuelled as never before by non-government involvement, including a powerful voice for women, there was hope that what Avabai Wadia from India called "a new holistic approach to population" could be unanimously agreed. With such agreement, it was believed, a bankable Plan of Action would emerge, sweeping away old uncertainties and opening the door to realistic funding for family planning and reproductive health care. Such an outcome would also mark a shift in the understanding of how such services should be delivered, as part of a broader concern with social investments, especially in women and children.

The April meeting has thrown such an outcome into doubt. The Vatican, and its small band of supporters, is clearly intent on undermining the broad extension of family planning services, on denying teenagers the practical help they need and preventing any wider provision of safe abortion services. All references to such issues are now 'bracketed' in the draft Plan of Action for further debate. The hope is that since Conference decisions are reached by a vote, rather than by consensus, the brackets will be safely removed.

The importance of the outcome is underlined by every one of the articles in this issue. Paul Harrison shows how the imperatives of population, economics and the environment lend support to investments in human development, including family planning. It is a view exemplified by the experience of Mauritius as Wolfgang Lutz explains, and developed by James Gustave Speth of the UNDP. But perhaps the most striking support for this theme comes from the three comparative studies of success and failure in population programmes which we report here. Tamil Nadu, Thailand and Botswana all show how much progress can be achieved in a very short time if a sustained effort is made to invest in people. Let's hope the majority of delegates to Cairo ensure that that message emerges loud and clear.

John Rowley

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NEWS FILE

Prepcom setback

After three weeks of acrimonious debate on the draft document for the Cairo Conference on Population and Development, Prepcom III finally ground to a halt on April 22, *writes Don Hinrichsen.*

The preparatory conference failed to reach agreement on a number of key issues, including abortion, access to contraception by adolescents and financing. These contentious issues will have to be resolved in Cairo in September, if a realistic action plan is to emerge after nearly three years of hard work.

The Egyptian version of the ICPD logo

"Clearly, this preparatory session has been derailed by the Vatican," raged one delegate from Scandinavia. "We should have been better prepared to counter their obstructive tactics."

In the end, the Vatican and its client states – particularly Honduras, Nicaragua, Malta Benin, Morocco, Guatemala and Argentina – were able to prevent words like "reproductive rights", "safe motherhood," "reproductive health," and "family planning" from being incorporated into the final text.

"All of these key phrases now have brackets around them," fumes one UNFPA official. "It is a double insult that the Vatican, which has only observer status at the conference, was able to get a couple of countries, like Honduras and Nicaragua, to go along with their plans to sabotage the whole process."

For many delegates, from developed and developing countries alike, the three week session was extremely frustrating. Commented one disillusioned delegate from Europe: "It is hard to believe that, in the end, the conference boiled down to a confrontation between the Vatican (with) a handful of countries on one side and everyone else on the other."

Population officials and delegates alike are now trying to regroup for the final showdown in Cairo. Lobbying over the summer months is expected to be fierce. Tragically, the blueprint for guiding international population activities over the next 20 years is now in doubt, and at a time when clear directions are needed.

Women's voices

Despite the setbacks, a number of delegations at Prepcom III were pleased that the basic plan of action has been broadened considerably from the one which emerged at the end of the Mexico City Population Conference in 1984. Family planning has been expanded to include women's reproductive health, educating girls and promoting women's equality, among other important issues.

Another notable change from earlier population conferences was the active participation of many women's NGOs, particularly from the developing world. Ironically, the Vatican's tactics had one positive effect – it forced women's groups from North and South to form a coalition in support of the draft plan of action, a coalition that might not have been possible otherwise.

"We have been talking about giving women real choices," stated Dr Nafis Sadik, the secretary-general of the Conference and executive director of the United Nations Population Fund (UNFPA) at a concluding press conference in New York. "Unfortunately, as soon as that seemed to become a reality, some delegations seemed very threatened by its implications."

Two issues which seem likely to engender continuing debate in Cairo are: access to safe abortions, and whether or not to provide counselling and contraceptives to adolescents. The United States, along with most of Europe and a significant number of Third World countries, think that access to safe and legal abortion should be part of reproductive health services for women. This is vehemently opposed by the Vatican and some developing countries.

Roughly the same line-up is fighting over whether or not to provide family planning services to teenagers, despite the fact that adolescent pregnancies now account for 40-50 per cent of all pregnancies in some African and Latin American countries.

Funding hopes

Financial resources must be made available if any population action plan is to get off the ground in Cairo. The Draft Plan of Action calculates that meeting unmet needs for family planning will cost around $11 billion a year by the turn of the century; increasing to $13 billion annually if all reproductive health services and prevention of sexually transmitted diseases are included in the price tag.

What will emerge from Cairo is anyone's guess. But getting adequate funding is essential if any action plan is to move from rhetoric to reality. "We need to get our priorities right," insists Alex Marshall, Chief of Media Services at UNFPA. "Whatever the amount agreed, it is still likely to be only around 4 per cent of all development assistance – the cost of a few stealth bombers. In terms of the overall development picture, this is a drop in the bucket."

There is real concern that, unless the Vatican's attempts to emasculate the Cairo plan of action is countered, we may end up with a tepid, lifeless document that does little to bring family planning and reproductive health services to the millions of women who now lack access to these essential services.

Stronger voice for small islands

The most important meeting on environment and development since the Earth Summit - the Global Conference on Sustainable Development in Small Island States - has managed (just) to keep the Rio agreements alive, *writes Geoffrey Lean.*

The conference met in Barbados from 25 April to 6 May to decide the fate of the sixth of the earth's surface that falls within their exclusive economic zones. It was widely seen as the first major test of whether the world's leaders intended to implement the resolutions they had solemnly agreed at the Earth Summit

IUCN

two years ago.

As the Barbados meeting opened, a Group of Eminent Persons including the Secretary-General of UNCED, Maurice Strong, warned: "The momentum generated at the Earth Summit is faltering", blaming "the failure of the developed countries to honour the commitments" they had made. During the conference, the industrialized countries long resisted reaffirming their Rio undertaking to provide "adequate, predictable, new and additional resources" for sustainable development: but they eventually re-accepted this formula, and a Barbados Declaration and Plan of Action were agreed.

UNEP

Maurice Strong

The most significant result of the conference, however, is likely to be the increasing cohesion and solidarity of the Small Island Developing States (SIDS), who are emerging as the world's latest (and least likely) power block, controlling more than a fifth of UN General Assembly votes.

Since they formed themselves into the Alliance of Small Island States (AOSIS) in November 1990, they had proved to have unexpected clout. They played a vital part in securing the Climate Change Convention, and insisted on the Barbados Conference. New Zealand owes its present position on the Security Council to the votes of the SIDS, and senior UN officials privately forecast that in future the islands' voting power would be able to ensure that they always had a client or two at that table to look after their interests.

World Bank under fire

Over 500 non-governmental organizations (NGOs) from all over the world have mounted an unprecedented campaign to try to change the policies of the two powerful Washington- based institutions, the World Bank and the International Monetary Fund (IMF), *writes John Madeley.*

The NGOs believe that the structural adjustment programmes (SAPs) the Bank and Fund urge developing countries to adopt are harming both people and their environments, and that the two organizations have too powerful an influence over developing countries.

Under the motto, "50 years is enough", some NGOs are urging that the two organizations be closed down in 1995, their 50th anniversary year, while others believe that reforms are possible.

The allege that the poorest groups, including women and girls, are especially losing out under SAPs. These programmes usually oblige governments to prune public sector jobs, cut spending on social services, slash support for food-producing farmers, remove food subsidies, and liberalize trade, in return for aid and balance of payment support.

SAPs have often led to sharply increased prices for basic foodstuffs and to the imposition of charges for education and health care; these charges can mean that children are removed from school and that people who are most in need of health care services cannot afford them. It seems that women are bearing the stress of structural adjustment as they struggle to feed their families and provide them with adequate health care and education.

The NGO action comes at a time of growing questioning about whether conventional development policies will help the world's poorest people. Many NGOs also believe that the outcome of Uruguay Round – recently concluded under the General Agreement of Tariffs and Trade (GATT) – might help world trade but have damaging consequences for the millions of the poor. World Bank estimates suggest that most African countries will lose from the changes the round will introduce, for example, as imported food prices rise.

The UN's World Summit on Social Development, to be held in Denmark next March, will highlight the need for people to be at the centre of development, and for greater emphasis on participation, and social rather than economic factors.

Two-year poverty campaign

The British aid agency Christian Aid is launching a two-year "Who Runs the World" campaign this July to highlight the effects of World Bank and IMF policies on the world's poor, *John Madeley adds.*

A book accompanying the campaign draws on the impact of SAPs in a number of countries, notably Bolivia, Sri Lanka and Zimbabwe, and gives an individual voice to some of the people affected. It shows the high level of awareness that exists among the poor about SAPs, and the huge effect these policies are having.

In Zimbabwe, for example, the price of the basic food, maize, tripled in the year, but wages lagged a long way behind. In Sri Lanka, structural adjustment has caused steep rises in the prices of essentials such as medicines. In Bolivia there has been a marked increase in the numbers migrating to urban areas due to increased poverty in the villages.

On health issues, the report says that SAPs increase the health needs of those families whose economic position they weaken. This occurs partly because lower incomes can mean less food and more undernutrition, and partly through the increased health risks resulting from reduced household time for health related activities such as food preparation and fetching water.

There are more human approaches to development than imposed SAPs, says the Christian Aid report. Alternative strategies lie in putting people at the heart of development thinking and policy, it says, and in recognizing that everyone has the right to say about development.

■*Contact: Christian Aid, PO Box 100, London SE1 7RT.*

Wetlands Convention

More than 650 strategic wetland sites covering some 40 million hectares are to be given special environmental protection under the terms of the Ramsar Convention, the international treaty which finally came into force in May, more than 20 years after it was first proposed.

Although the Convention on Wetlands of International Importance, especially as Waterfowl Habitat, was approved in Ramsar, Iran, in 1971, it has been slow to gain government ratification. This is partly because it lacked financial and administrative structures and adequate documentation in the major international languages. These weaknesses were overcome by successive meetings culminating in the adoption of the Regina Amendments at a meeting in Canada in 1987.

Government interest picked up rapidly. The Convention is intended to conserve and promote wise use of lakes, rivers, coastal waters, marches and numerous other wetland habitats. While ratification was awaited, numerous conservation measures and guidelines for wetland management were formulated on a provisional basis.

A Ramsar Convention Bureau has now been set up at IUCN – the World Conservation Union. The work is to be financed by contributions from member governments at a budget level of US $3 million a year.

■ *Contact: Ramsar Convention Bureau, IUCN, CH-1196 Gland, Switzerland. Telephone: +4122 999 0170; fax: 999 0169.*

The pay-off for slowing population growth, in terms of sustainable development, has never been clearer, argues Contributing Editor *Paul Harrison*. But it needs to be spelt out in Cairo so that the necessary investment in human development, including that of women, has a chance of being mobilized.

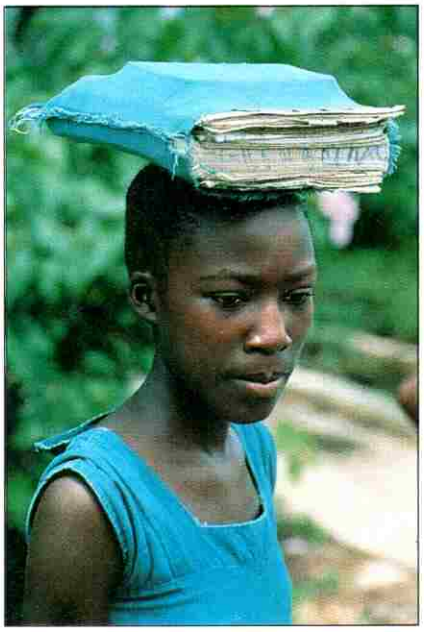
Population facts that can spur women's well being

The Cairo World Population Conference pays meagre attention to the links between population and sustainable development.

In part this is because UN conferences and agencies are specialized. UNCED covered the environment: this time it's population's turn. In part it may be a response to feminist groups who argued at the Preparatory Committees that environmental arguments should not be used to promote population activities. Women's rights should not be used as a means for environmental ends.

It is true that environmental concern may drive some people to advocate compulsion, targets, or mass saturation family planning programmes of low quality. All of these measures end up by abusing women's rights and should be rejected on those grounds alone. But they don't advance the environmental cause either. None of them can deliver a rapid or sustained slowdown in population growth rates. Indeed by spreading mistrust of family planning, they are more likely to slow the process.

To achieve rapid drops in fertility, we need to improve the quality of family planning, to increase access and to expand freedom of choice all at the same time. We also need to focus just as strongly on other activities that slow population growth – women's education, women's rights, mother and child health, and improved income distribution. This combined programme of human development will advance women's rights a long way. But it will cost a lot more than present spending in these sectors.



To school in Tanzania.

MARK EDWARDS/STILL PICTURES

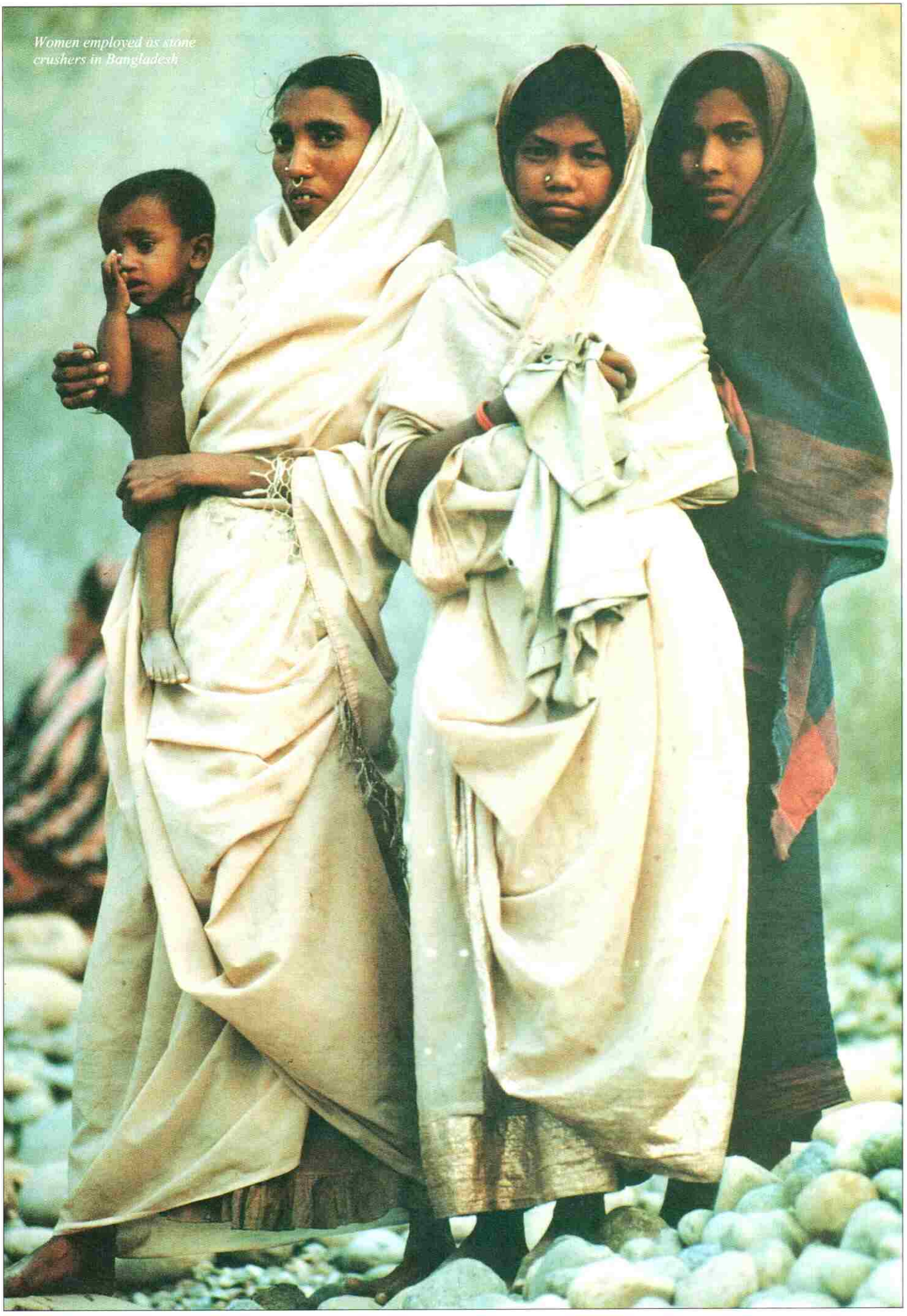
How can we increase funding for human development in times of budgetary restraint? Only by re-allocating from other sectors. But how do we persuade politicians to spend more in this area, among so many claims?

The need to improve women's rights is morally impeccable. Of course it *should* be sufficient motive in itself. But absolute poverty and hunger are compelling motives, too. Yet the reality of one billion-plus absolute poor has never been enough to get Northern politicians to respect their agreed aid target of 0.7 per cent of GNP – nor to make Southern politicians engage in land reform or income redistribution in a serious way.

If the human development sector is to get the resources it needs, then we need to muster some pretty powerful arguments and evidence in its favour. In other words, the feminists' goals can be achieved only if we *do* use the environmental and economic arguments for investing in women.

Economic development

Evidence for those arguments is stronger now than it has ever been. No other area of investment does so much for the quality of life, for education, health, and empowerment of the marginal. But the quality of life isn't everything. Politicians North and South are still pre-occupied with economic growth.



Women employed as stone crushers in Bangladesh

HELDUR METOCNY/STILL PICTURES

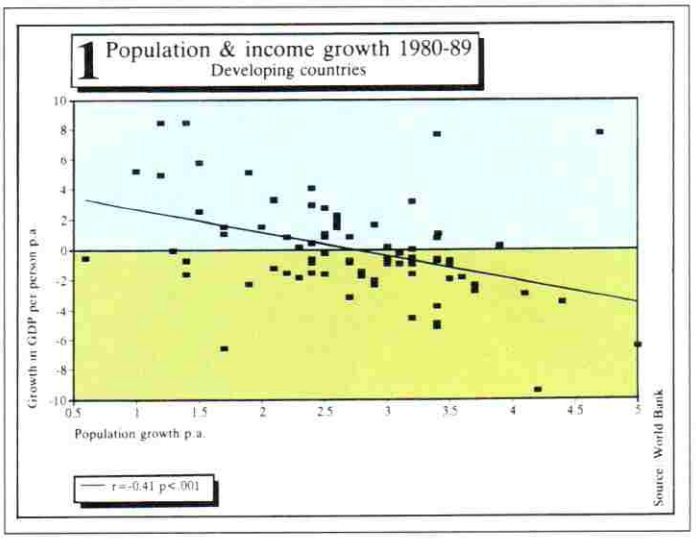
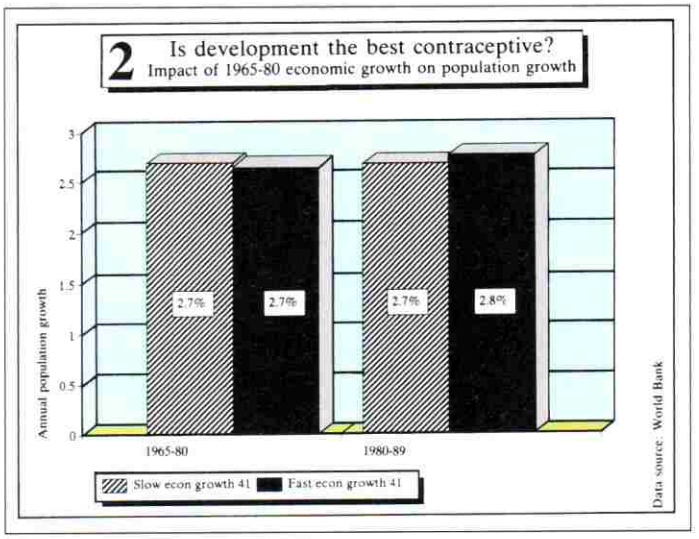

1 Population & income growth 1980-89
Developing countries
Growth in GDP per person p.a.
Population growth p.a.
r = -0.41 p< .001
Source: World Bank

Chart shows how most developing countries with slower population growth during the 1980s enjoyed faster income growth. Each one per cent drop in population growth was associated with a 1.7 increase in income growth. (Each block represents one country.)



Forty-one developing countries with slower economic growth in 1965–80 were compared to 41 with faster economic growth. Chart shows that faster economic growth in 1965–80 was not linked to slower population growth in the 1980s. Economic growth does not seem to be the best contraceptive.

There is a long-standing debate among economists about the link between population growth and growth in incomes. The consensus during the 1980s was that there was no observable link.

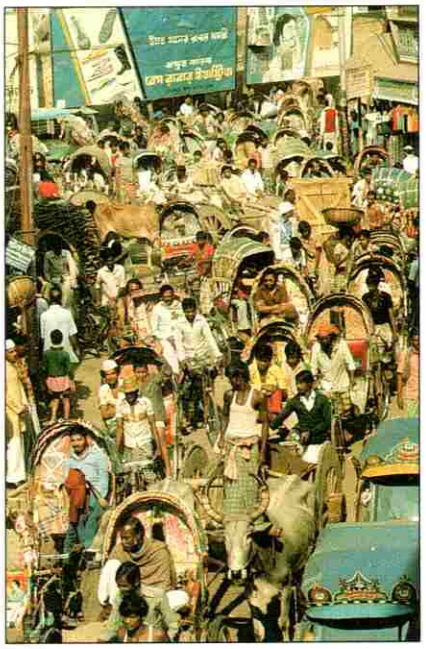
But the evidence is changing. French economist Didier Blanchet looked at the relationship between output growth per capita and population growth, for consecutive five-year periods between 1960 and 1990. Up to 1975 there was no apparent link. After that the link got stronger, and increasingly negative, so that for the 1985-90 period every 1 per cent reduction in population growth was associated with a 2 per cent increase in per capita incomes.

I compared income growth and population growth in 82 developing countries over two periods, for the UNFPA's *State of World Population 1992*. Between 1965 and 1980 there was no correlation.

Since then the picture has changed dramatically. In the 1980s the 41 countries where population was growing more slowly managed an average income growth of 1.23 per cent a year. In the 41 countries with faster population growth, incomes *fell* by an average 1.25 per cent a year. The difference between these two groups was a massive 2.5 per cent per year. It could be, of course, that faster economic growth was causing slower population growth. So I also looked at how population growth *before* 1980 affected economic growth *in the 1980s*.

The effect was marked. The 41 countries with slower population growth in 1965-80 saw their average incomes *grow* at 0.9 per cent a year during the 1980s. But the 41 countries with *faster* population growth in 1965–80 saw average incomes *fall* by 0.9 per cent a year in the 1980s. The difference in income growth between the two groups was 1.8 per cent per year.

The figures knock on the head the old theory that economic growth is the best contraceptive. There was no correlation between income growth in 1965–80 and population growth in the 1980s (see chart above left).



Rickshaw traffic, Dhaka, Bangladesh

MARK EDWARDS/STILL PICTURES

But perhaps the relationship might be due to regional effects? Faster economic growth in Asia may have been due to good education and good economic policies, not slower population growth. Slower economic growth in Africa, the Near East and Latin America could have been due to low commodity prices, debt and misgovernment, not to faster population growth.

The population effect cannot be explained away by regional effects. Income growth in the 1980s shows a significant negative link with population growth *within* every region.

The link is probably due to a combination of factors. People who have fewer children can save more – savings and investment rates in East Asia are extraordinarily high. Education was an important factor in economic growth in the 1980s – and education, especially for women, also brings lower female fertility.

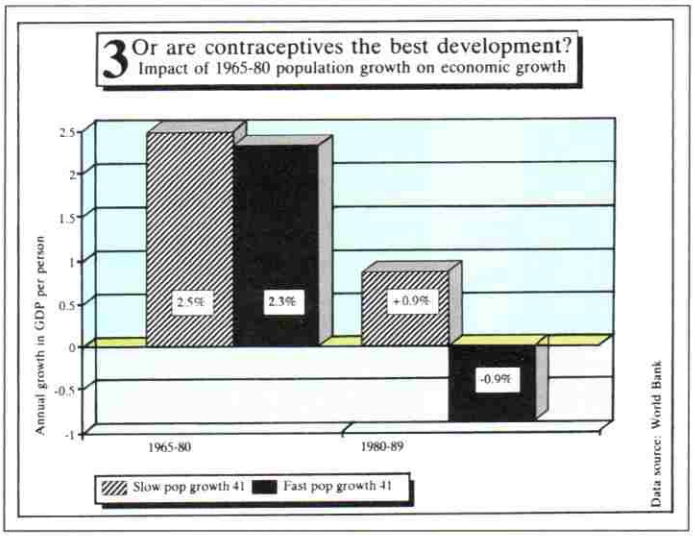
Environment

The arguments over population's impact on the environment have been, if anything, even fiercer. Part of the problem has been the way the question is usually framed. If we ask: Does population growth cause serious environmental damage, or not? – then we can only answer 'Yes or no'. And both answers are wrong.

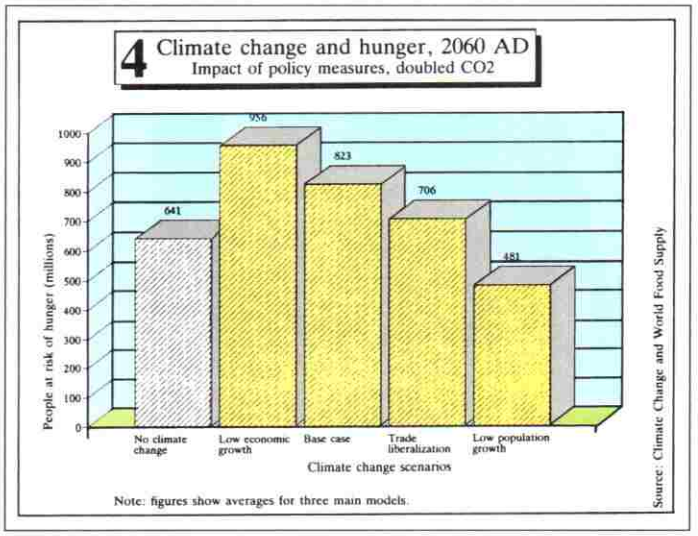
We have to shift to a different way of looking at the problem. Population is part of a huge system of human factors which impact on the environment and on each other.

Population is a very significant factor in some kinds of environmental damage. Many studies have found a strong correlation between population density and deforestation. Loss of biodiversity is much harder to document – we don't even know how much is being lost. But since tropical forest is the richest habitat for species, there must be a link with population growth here too.

In other sectors population growth is far less important. With air and water pollution or greenhouse emissions, growth in consumption is usually more important than population growth.



The same 82 countries were divided into 41 with slower *population* growth in 1961–80 and 41 with faster. In the 1980s the group with slower population growth saw their incomes grow 1.8 per cent faster than others. This may be due to lower spending on education and higher savings by small families.



Climate change scenarios (centred under four right-hand columns) Chart shows numbers at risk of hunger in 2060 under different conditions. The four bars on the right assume CO^2 doubles. The base case assumes normal economic growth. Trade liberalization assumes removal of agricultural subsidies and tariffs. The low population growth scenario assumes the low UN projection – all others assume the medium projection.

PAUL HARRISON *THE THIRD REVOLUTION*, PENGUIN

Slower population growth may have an unexpected effect on pollution. Emissions and effluents are the result of population combined with consumption and technology. If a slowdown in population growth brings an even *faster* growth in incomes and consumption, then the effect may be to *increase* pollution, not reduce it. This seems to be the case for the 1980s, when every 1 per cent *less* population growth was associated with 2.2 per cent *more* income growth.

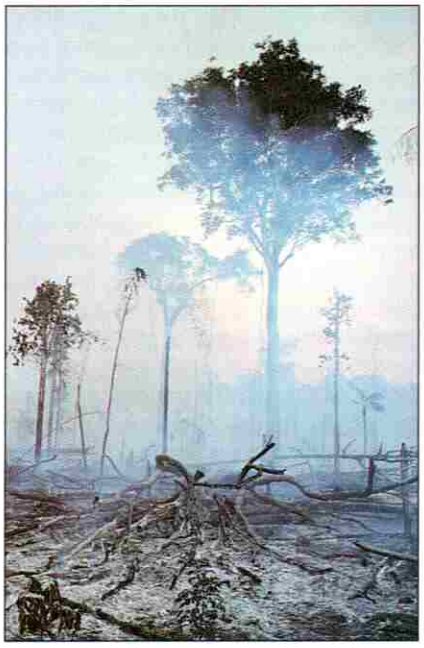
However, this effect is probably only short-term. First, rapid fertility decline is a one-off process. In the later stages yearly drops in population growth rates are quite small, so they can have only a small effect in increasing consumption. Second, smaller families save more at first, but as the consumer society gains steam, they spend more, and savings rates tend to fall.

Eventually income growth reduces at least some of the more local forms of air and water pollution. As incomes increase further, and most people come to live in cities, people place more value on clean air and water and the preservation of nature – and they are willing to spend more to get them.

The periods of fertility decline and income growth have to be gone through anyway at some point. They can't be delayed simply because they may increase pollution. Faster fertility decline means lower total populations in the long run, and this will make a big difference to the environment.

With concerted efforts in women's education, women's rights, mother and child health, and family planning, we could achieve the UN low population projection. In that case world population in 2050 would be 2.2 billion less than the medium – a whole world of 1937. It would be 4.7 billion less than the high – a whole world of 1984.

These population differences would mean huge differences for the environment. Humans need space for farm and non-farm needs. Even in (mainly irrigated) Asia this amounts to about 0.2 hectares per person. Assuming this very low land requirement, the low population projection for 2050 would swallow up 4.4 million square kilometres less than would be the case under the medium projection.



Deforestation in the Amazon.

MICHAEL HARVEY/PANOS PICTURES

This is the area of wildlife habitat that would be left undisturbed. This saving is not far short of the entire forest area in developing Asia. The low projection would take up a massive 9.4 million square kilometres less land than the high projection – more than all the rainforests in Latin America today.

Slower population growth could make a dramatic contribution to slowing global warming. By 2050 the low UN projection would mean 9.3 billion tonnes less in carbon dioxide emissions per year than the medium projection, at current average rates of carbon dioxide emission per person. In today's terms, this would be equivalent to halting *all* current deforestation, *plus* a 26 per cent improvement in global energy efficiency (see chart above right).

It could also mitigate the *impact* of climate change. A recent study from Oxford University's Environmental Change Unit looked at the effect that global warming might have on food production and the numbers of malnourished. If population and incomes grew as expected, by 2060 823 million people in developing countries would be at risk of malnutrition (averaging the three climate models studied). If the world could achieve the UN low population projection, the malnourished would number only 481 million – 342 million fewer people in hunger.

Thus efforts to slow population growth can be among the most effective environmental measures. They can help to speed income growth. And they advance women's rights and the quality of life. Only by drawing attention to these links do we have any chance of making sustainable human development the central goal of policy makers for coming decades. ■

Paul Harrison is author of The Third Revolution *(Penguin Books, 1992), a study of population, environment and sustainable development. He is currently heading a research project for the European Commission on how to integrate population and environment into development practice.*

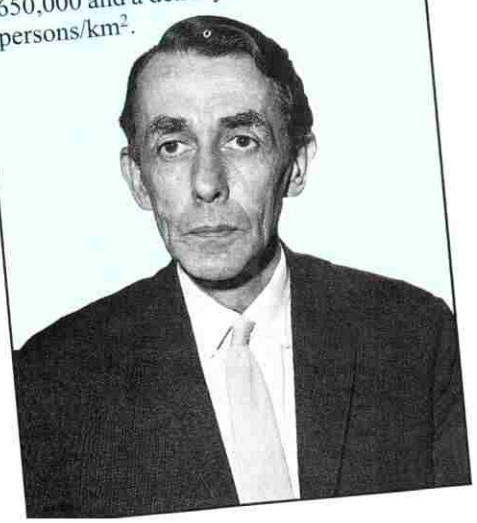
Mauritius finds the magic mix

MARC THAURONT/STILL PICTURES

In a remarkable piece of research, scientists have investigated the interactions of population, development and environment in the Indian Ocean island of Mauritius and have reached some striking conclusions about the importance of social investments, including family planning.
Wolfgang Lutz, **of the International Institute of Applied Systems Analysis, reports.**

In January 1960, Professor Richard Titmuss of the London School of Economics arrived in Mauritius, then still a colony of Great Britain, to produce a report on social policies on this small tropical island in the Indian Ocean. What he found was sheer misery.

Before his arrival one of the worst cyclones of the century had ravaged this poor sugar island and still aggravated the tremendous social and economic problems of its multi-ethnic population. Despite the immediate concerns of poverty, health and inequality, the Titmuss report[1] singled out the very rapid population growth of more than 3 per cent per year as the greatest problem of this island with a population of 650,000 and a density of more than 320 persons/km^2.

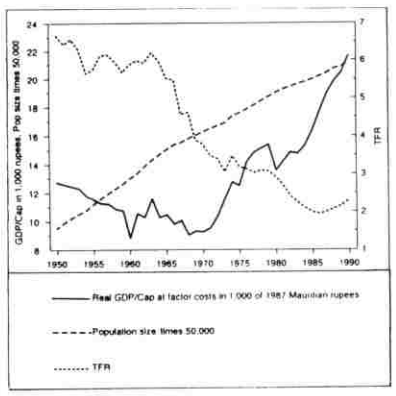


Thirty years later Mauritius is economically booming and enjoys a high level of social development. Fertility is around the replacement level and the mortality pattern is more similar to Europe than to Africa. Mostly because of momentum, population has grown to above one million. In economic terms Mauritius is considered a newly industrializing country. And with respect to the environment the government has recently taken an active role to protect its natural beauty and diversity.

What happened between 1960 and 1990 to bring about this remarkable change, making Mauritius a textbook case of a success story? In studying this 30-year period, two developments stand out most prominently in transforming the social and economic fabric of the island: between 1963 and 1972 fertility in Mauritius declined from 6.2 to 3.2 children per woman on a strictly voluntary basis which was probably the world's most rapid fertility decline; then during the 1980s Mauritius experienced stunning economic growth based on export-oriented industries, mostly textiles (Figure 1). To understand these trends and model alternative options for the future, a computer simulation model, designed to study the complex population–development–environment interactions, was developed.[2]

Why did fertility decline so rapidly in a population experiencing a stagnant economy and even declining per capita income? The answer lies in a combination of social development, especially concerning female status and education, and appropriate family planning programmes, together with social security legislation. Following a heated discussion of the Titmuss and other reports, a political consensus was reached in Mauritius that family planning was a national priority and it was supported by all religious groups, including the majority Hindu community, the Islamic community and the influential Roman Catholic Church. By distinguishing between the objective need for family planning on the one hand, and the use of specific methods on the other, the Roman Catholic Church did not object to the government efforts and founded its own programme offering strictly natural methods. During the 1960s about half of the decline was due to a reduction in marital fertility; the other half resulted from increasing ages at marriage.

Fig. 1



Before the onset of the fertility decline in Mauritius, already more than half of *all* women could read and write (see Figure 2, which also indicates that the association between literacy and fertility was similar to that in many other countries). Among young women

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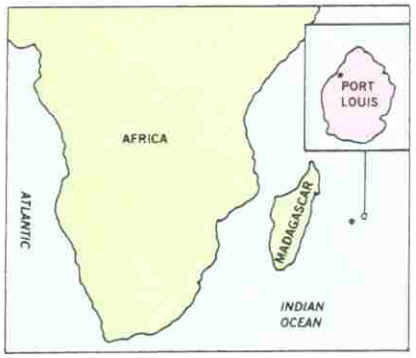
[1]Published later as: Titmuss, R. and B. Abel-Smith. *Social Policies and Population Growth in Mauritius*. London: Frank Cass, 1968.

[2]This analysis was the objective of a UNFPA-sponsored research project carried out by the International Institute for Applied Systems Analysis (IIASA) in scientific collaboration with the University of Mauritius. The results are being published in a book: *Population-Development-Environment: Understanding Their Interactions in Mauritius*. (W.Lutz, Ed., Springer Verlag, 1994).



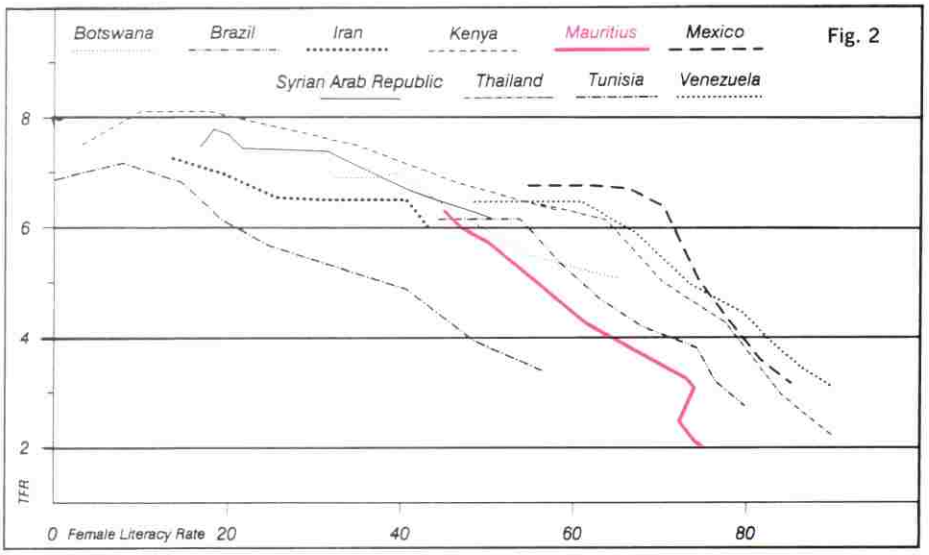


Fig. 2

Left: *Despite high population density, Mauritius has made special efforts to conserve its natural beauty.*
Below: *Women working in an electronics factory.*

in Mauritius the percentage literate was much higher. Female secondary education increased simultaneously with the fertility decline. Higher female education affects fertility in three different ways: a tendency to increase the age at marriage, a general reduction in the desired family size, and an increase in the openness towards using contraception. Furthermore education strengthened the position of women and led to higher labour force participation rates. Because education was deemed desirable, the rather high cost of education was also an incentive for parents to have fewer children.

In terms of economic policies around 1970 a shift from import substitution to export orientation took place. Export Processing Zones (EPZ) were set up that attracted foreign capital through a generous combination of tax incentives and facilities. While the first 10 years of EPZ were a difficult transition period, industry boomed after 1980. Textiles started to compete with sugar cane as major export earners. Unemployment had been a dominating socio-economic problem during the 1970s. Still in the census of 1983 more than half of young men aged 20-24 were without jobs. By 1990 unemployment had virtually disappeared. Currently, per capita income is more than US$ 2,300 and purchasing power is more than the equivalent of US$ 5,700.

The sequence of fertility declining in poverty followed by economic growth challenges the traditional view that economic growth is a prerequisite for declining fertility. The Mauritian evidence and that of many other countries shows that the social side of development is more important. There is even some evidence that the fertility decline helped stimulate the economic development. Increasing labour force participation of young women with basic education was one of the engines of economic growth in Mauritius. Analy-

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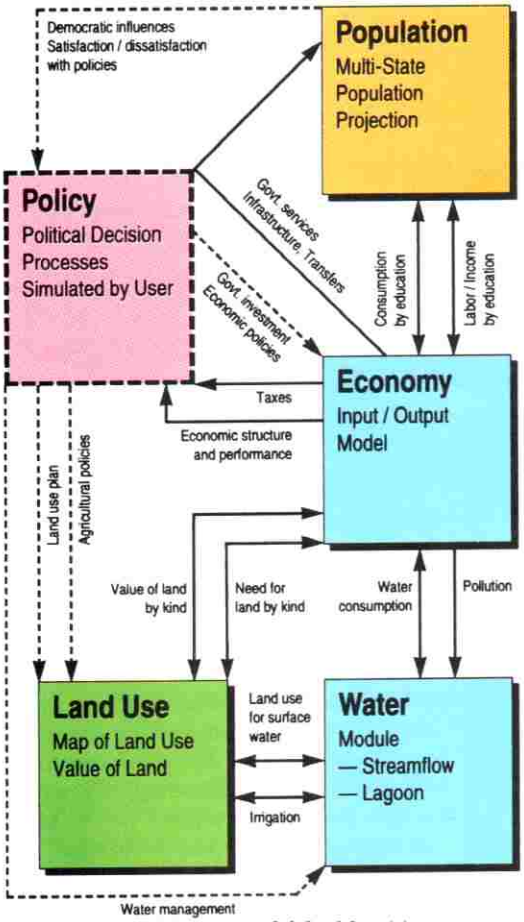
Above: *Mauritius gives high priority to educating girls.*
Right: *High quality tourism is the aim.*

Fig. 3



Computer simulization model for Mauritius.

sis showed that the EPZ policies and increasing export demand were the most important factors in economic growth, but that declining fertility also had a clearly visible positive effect on income.

Much of the analysis mentioned here has been carried out using a computer simulation model that consists of several semi-independent modules: a population module, an economic module, a water dynamics module and a land use module (see Figure 3). The model was set up in a way that only immediate unambiguous linkages are 'hard-wired' whereas disputable associations and feedbacks can be chosen and modified by the user by means of computer-aided scenario setting. The model has been used to study alternative histories of the 1962–87 period and to evaluate alternative future developments to the year 2050.

The rapid industrialization of Mauritius has put stress on the environment. Problems have already become apparent with respect to land use conflicts and water pollution in the lagoon affecting the health of the vital coral reefs. Considering future economic development within given ecological constraints, it turns out that even on a humid tropical island the availability of sufficient clean water becomes a major limiting factor. Good water management, however, can solve the problem mostly through investments in wastewater treatment and reservoir building.

Extensive considerations of the question of food self-sufficiency for Mauritius resulted in the conclusion that it is theoretically possible but does not make economic sense to aim for general food self-sufficiency. However, flexibility should be acquired in order to quickly switch to food production in case of major problems on the international market. It also makes sense to slowly reduce sugar production and aim at a structural change in the economy, toward higher value-added products and services which also would be less polluting and less water intensive. An essential domestic prerequisite for rapid future development on a sustainable path lies in the education of a highly-skilled labour force.

One specific industry with a special relationship to the environment is international tourism. In Mauritius tourism presently comprises about 15 per cent of the total export earnings and 3.3 per cent of the GDP. Mauritius has made a clear choice for high-quality expensive hotels by limiting the number of hotel rooms and banning charter flights. Hotels have caused some environmental problems by polluting the lagoon and covering many of the most beautiful beaches of the island. On the other hand tourism also accelerates the feedback from first visible signs of environmental pollution to effective measures to combat it, because immediate economic interests would be touched if tourists decided to go to other cleaner islands. Such rapid preventive and curative measures on the environment, however, require a functioning political and economic system, as is the case in Mauritius.

Based on the Mauritius study, the policy priorities for sustainable development can be summarized under two headings. First of all, in many vital issues – such as social legislation, the family planning programme, the change in economic policies and the recent environmental legislation – the foresight and accountability of policy makers were a key factor in securing a peaceful development toward prosperity in this island state with many potentials of conflict due to great ethnic, religious and social differentials. Secondly, because the human resource turns out to be of crucial importance for sustainable development, investment in human skills and especially in the status of women must be given highest priority.

The story of Mauritius shows that more than any technical and economic development aid, investments into the human resource – with a priority on female education – leads a population towards finding its appropriate level of reproduction, an appropriate economic infrastructure and governance, and the capacity to meet future challenges while striving for sustainable development. ■

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Reaching the hard to reach

by Pouru Bhiwandi, Martha Campbell and Malcolm Potts

The draft plan of action, prepared for the International Conference on Population and Development, says the number of couples using contraception in the developing world must rise from 550 million in 1995 to 880 million in 2015 if the envisaged reduction in unmet need is to take place. If this is to be done, alongside other improvements in reproductive health care, including measures to prevent the spread of HIV and other sexually transmitted diseases, the total cost of national population programmes is likely to rise to $17 billion in the year 2000 and $21.7 billion in 2015. But how are governments going to serve these additional users of family planning, many of them hard to reach in remote rural areas or in crowded shanty towns? Here three highly experienced experts give their own personal view.

MARK EDWARDS/STILL PICTURES

Above: *Panama poster promotes use of condoms to avoid AIDS.*

The problem is not so much reaching people as allowing them to access the services they want. All over the world couples want smaller families. The percentage of married women who say they want no more children varies from under 20 in Senegal to almost 80 per cent in Peru. In addition vast numbers of women want to delay the next birth. The crowded wards in the hospitals that treat botched abortions in so many parts of the world add reality to the statistics from social surveys.

In 30 years of organized family planning programmes a great deal has been learned about the acceptability of various contraceptive methods and how to make them available. In countries as diverse as Buddhist Thailand, Catholic Colombia and Islamic Indonesia fertility has fallen two to four times as rapidly as it did in the West at a comparable stage in the transition from large to small families.

Until recently sociologists overestimated the socio-economic variables in fertility decline and underestimated the role of family planning services. So ingrained was the conviction that increases in wealth and improvements in education were required for fertility decline that in 1967 Kingsley Davis of the University of California at Berkeley called the family planning programmes that were beginning at that time "either quackery or wishful thinking". He was wrong: wherever realistic contraceptive choices (including voluntary sterilization) have been offered, and some effort has been made to face the problem of unsafe abortion, fertility has plummeted despite cultural and religious barriers. In 1959 women in East Asia were having an average of 5.9 children; today, it is 2.3 – or near biological replacement.

This is not to say that development and family planning are not synergistic. In nearly all countries, educated urban families have fewer children than rural illiterate families. But experience has shown that socio-economic development is not a *prerequisite* of fertility change and good family planning services, of themselves, can reduce fertility. The effects work both ways. Studies from Thailand show that even when all other social and economic variables are fixed (e.g., income, land holding, parental education) children from small families are more likely to enter school and stay in school than children from large families.

Of course, in many parts of the world women do not call the shots: they are discriminated against and have little autonomy. All those interested in development and gender equality must do their utmost to ensure better access to female education and strive for greater female autonomy. But from the perspective of those designing family planning services, these problems simply reinforce the basic strategy to improve access to meet existing demand.

The more disadvantaged or ambivalent an individual person is about family planning the more convenience plays a role in contraceptive use. If a woman is a new and uncertain user, or of her husband disapproves of her decisions, then she may find the fact the family planning clinic is open only certain hours an excuse for not going; while if the same contraceptive is available in the local store, she may use it. Simplifying access to family planning services can remove as a barrier the absence of spousal consent.

The demand for family planning also seems to be a moving target. This has been demonstrated aptly in Bangladesh, where the per capita income is less than a dollar a day, over one in 10 babies die before their first birthday and the status of women is low. Contraceptive prevalence has risen in Bangladesh from one in 20 in 1975 to

40 per cent today and completed family size has fallen from 7.0 to 4.8 in 20 years. Even more impressive is that desired family size has fallen during this period from 4.1 15 years ago, to 2.9 today, 30 per cent lower than the government's own most ambitious demographic target. These changes have occurred through the introduction of accessible family planning choices, programmes still imperfect but much better than, for example, Pakistan's, where contraceptive prevalence has not risen and family size remains stubbornly at 7.0.

Family planning is now a well understood, extensively studied and highly predictable undertaking. For every 15 per cent increase in contraceptive prevalence, completed family size will fall by approximately one child. A realistic programme provides contraceptives at numerous locations, sells contraceptives at acceptable prices, delivers oral contraceptives without a prescription, tries to involve private as well as government doctors, offers voluntary sterilization without limits of age or the number of children a woman has, promotes long intervals of breast feeding and deals with the public health problems associated with unsafe abortion.

The secret to good family planning is to make a variety of well promoted choices available through a range of complementary distribution channels. Family planning is not a medical treatment but a service for consumers, not necessarily tied to health care systems. Low dose contraceptive pills are now so safe that there are suggestions even in the United States and Britain to remove them from prescription. Tying family planning to medical practice often does women a disservice by reducing their choices and accessibility. Consumers must be allowed to orchestrate their own services as much as possible. Most people end up using use different methods at different stages of their journey through their fertile lives: they may buy their condoms from a pavement vendor, get their pills from the corner pharmacy, their IUD from a private doctor, and their sterilization at a government health clinic.

Free programmes that employ armies of poorly supervised field workers are often inefficient. Community-based distribution (CBD) systems are often more cost-effective. CBD programmes use volunteers and

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HELDUR METOGNY/STILL PICTURES

Top right: *Community agent provides family planning in Bangladesh.*
Top: *Selling contraceptives in a Sri Lankan chemist shop.*
Above: *Tubectomy teams at a Bangladesh health centre.*
Below: *Maasai women in Kenya. Family planning can reduce maternal mortality among the very poor and the hard-to-reach.*

PAUL HARRISON/STILL PICTURES

MARK EDWARDS/IPPF

train people such as shopkeepers or village headmen's wives to distribute condoms and birth control Pills, charging the consumer a small amount and making a small profit, as in Thailand or Mexico. Payment may not cover the whole cost but it gives the consumer a lever on quality assurance. Patient payment is also a guarantee of freedom of choice, particularly in the all-important area of sterilization: people rarely pay for what they do not want, especially poor people.

In many parts of the world the most direct way to reach burgeoning numbers of underprivileged groups is to focus on robust, easy to manage projects that can be replicated rapidly. Is it better to reach 500 teenagers through a structured outreach programme at $50 a couple year of protection (CYP), or to serve 3,000 at $8 per CYP, through a less labour-intensive project? It is estimated that for about 360 million couples in the developing world, even the choice of family planning is not there. One of the problems is that individual agencies often expect the 'other agency' to do the work: the IPPF affiliate focuses on sex education for young people because it believes there are other sources of large-scale service – but can the young people really get the Pill or an abortion when they need it? UNFPA focuses on communications because it believes the government should provide large scale services – but are they really providing condoms and can any woman who wants one get a tubal ligation? Often not.

For the poorest of the world's families, such as those in the rural areas of much of sub-Saharan Africa or South Asia, the only practical way of reducing maternal mortality (the majority of the half million women dying each year from pregnancy, childbirth and abortion come from exactly these areas) is to make family planning choices available. Improvements in primary health care and obstetrics are urgently needed but could take a generation to put in place. Social marketing programmes, which sell subsidized contraceptives through small shops or kiosks and use local promotional skills, can get life saving contraceptives to the farthest corner of any country in three to five years.

As a result of continued high fertility, more women than ever before are entering the fertile years. As a consequence, while the rate of global population growth is falling, the absolute increase in human numbers each year continues to rise. The bad news is that whatever we do, global population is going to grow hugely before it stabilizes; the good news is that rapid action today can have a considerable impact on that stable final population. If we fail to take action now, many countries will face the same predicament as China, requiring forceful implementation of the one child family.

The demand for family planning is so strong that universal access to family planning could well shift population projections much below the 8.5 billion currently quoted as the median UN projection for 2025. We have an opportunity to double the number of couples using contraception in the developing world in a decade. If we meet this challenge, then the final stable population of the world will be several billion lower than if we allow innumerate people to continue to de-emphasize large scale family planning services.

The aggregate effect of hundreds of millions of individual choices about family size gives the planet as a whole a choice. If we have the wisdom and humanity to make family planning universally available by the end of the century, then we will improve the health of millions of families, enhance the status of women around the globe, decrease human suffering and tragedy, and set the world on a significantly lower population trajectory. The technology, experience and demand exist: do we have the insight and the political will to put the necessary policies in place? ■

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Ingredients of family planning success

by Jay Parsons

■Widespread recognition and acceptance by governments, especially ministries of health and/or national family planning coordinating agencies, that high levels of contraceptive prevalence cannot be achieved in the absence of the provision of adequate family planning information and services. But programmes must be culturally sensitive, offer a range of services, be voluntary and tailored to the needs of acceptors.

■Commitment by governments – measured primarily in terms of allocation of domestic financial and manpower resources – to make such information and services available to all sectors of society regardless of economic or social status or geographical location.

■Recognition by programme managers, both government and non- government, that satisfying existing demand for family planning is far easier and has a greater multiplier effect than tackling the more difficult issue of setting out, in situations of low prevalence or widespread resistance to family planning, to gain rapid and widespread acceptance of "the small family norm" or "the two child family".

■Flexibility and sensitivity of governments with regard to the need for different family planning strategies to fit particular local needs and conditions.

■Ability of governments to obtain international donor support for family planning by demonstrating commitment, ability to plan and implement national family planning programmes and strategies, and to co-ordinate – not be co-ordinated by – international donor agencies.

■Allocating national and donor resources to concrete programmes which empower women – from education for girls, literacy and skills development programmes for school dropouts to the full involvement of women in all aspects of development. ■

The author has served as Country Director for UNFPA in Indonesia, Thailand and Bangladesh. He is presently serving as Deputy Director of the Asia and Pacific Division in UNFPA headquarters in New York. The opinions expressed in this article are solely those of the author.

What makes population programmes succeed in some countries and regions, in the same part of the world, and fail in others? To explore this question, *People & the Planet* asked correspondents in India and Africa to investigate. We also asked a leading demographer to report on two countries in East Asia.

Worlds apart 1: Tamil Nadu and Madhya Pradesh

Reaping rewards of

Rami Chhabra reports first from Tamil Nadu, where the two-child family is now the norm. Pictures by Sanjeev Saith.

"*Ai ai yo. Pothum. Athigam etharkakha.* Enough. Why do I need more? I must better feed and educate the two I have."

Twenty-four year old Santhamani, a barely literate housewife whose husband plies a scooter rickshaw in Madras city, sits on a reasonably clean bed, feeding her baby, in a tiny ward at Saidapeth Health Post, a government health centre on the outskirts of Tamil Nadu's capital city. She is recovering from a tubectomy operation performed after her second childbirth.

This young woman – draped in a coarse pink cotton sari, a traditional gold nose pin gleaming on her bronze face, long black hair flatly combed and coiled on the nape in the typical South Indian knot – represents, nevertheless, a very radical shift in Tamilian lifestyles and culture. She personifies a new rising female assertiveness to seize destiny, once considered God-ordained, and reshape it to a woman's own sensibility.

Again and again, Santhamani's words – or others to similar effect – are to be heard across the Southern State of Tamil Nadu, from young mothers, city dwellers and villagers alike.

"We have understood the need and found an acceptable solution. Our husbands do realize also, but they won't come forward till it is much too late, if at all. So a woman must do what she can," pragmatically points out 25-year-old Indira, waiting to deliver her third child – and get the "operation" that will release her from the endless cycle of childbearing she had watched her mother go through.

At Poonamallee, a village some 20 kilometres from the ill-fated site of the late Prime Minister Rajiv Gandhi's assassination, there is 26-year-old Thamimunnisa belonging to a Muslim cobbler family. Notwithstanding her community's general preference for larger families, Thamimunnisa underwent a tubectomy after her second child – another daughter – now aged 4. With her is her mother Sabira Bi, who had undergone a tubectomy in the sev-

Mother and child in the tubectomy ward at the government health centre at Saidapeth.

social development

Left: *Family planning slogan on a truck at Naravarikuppam.*
Above: *Doctor and patients at Navarikuppam health centre.*

enties. "But I had borne six children by then," she says and proudly discloses that now, at her instance her two daughters and three daughters-in-law have terminated childbearing after two children each. "Why should they have to struggle as I did!" Sabira Bi underlines.

Forty kilometres in yet another direction is Naravarikuppam, a red soil area abounding in paddy husking mills. The small Primary Health Care centre just off the main highway is likely to lead the state this year with over 1,000 sterilizations performed during the year. Two young women doctors – neither much more than thirty – have worked out of a very simple operation theatre that has been converted from an existing room.

"So many women came asking for it and we had to take them, once a week by van seven kilometres away, so we requested for an upgrading of facilities," says Dr Shashikala. "The women are quite categorical about wanting to terminate childbearing and not be left with temporary methods to worry about constantly," supplements Dr Irene Nirmala.

Eighty five per cent of the women who sought a tubectomy at Narvarikuppam this year had three children or less; nearly 50 per cent only two. Eighty-five per cent were in their twenties, more than a third in the early twenties. Naravarikuppam reflects overall state trends. These show the per centage of women undergoing tubectomy with only 1 or 2 children at 46 per cent in 1992-93, an increase of 20 per cent from the late 1980s.

In three districts in the west, accounting for 10 per cent of Tamil Nadu's population, where the growth has dropped to 1 per cent and below, two thirds of women have only 1 or 2 children. Overall for Tamil Nadu, the mean age of an acceptor for tubectomy was down to 27.2 years in 1992-93 from 30.1 years in 1983-84. At the same time, the age at marriage for a girl is now over 21, highlighting a tight telescoping of the child bearing years. Even in the districts with the highest birth rates in the State, acceptors of terminal methods with one or two child families are over 40 per cent.

In Naravarikuppam's ward, 22-year-old Dhanalakshmi, the second wife of a widowed machine operator, has undergone tubectomy alongside a medical termination of a second unwanted pregnancy. She caresses her two older stepchildren as they sit besides her on the bed; a relative cuddles her toddler: "Why more and more, what for?" is her simple response to probing.

Hundreds of kilometres away from Madras, driving more than 200 kilometres across from Madurai district in the southern part to Coimbatore district lying adjacent to Kerala in the west, there are innumerable young women in villages and town slums to testify that Naravarikuppam is not a showcase phenomenon. Nor this tidal upsurge a state-coerced response, as some feminist groups have begun to argue, also linking the small family wave with some female infanticide cases reported from small pockets in certain parts.

In Pooluvapatti, Coimbatore, 22-year-old Baby Selvaraj voices a very different sentiment. One of five sisters who worked as an agricultural labourer to save a dowry to marry a textile work-

er, she has now undergone tubectomy after bearing just one daughter. *"Ponnu pillai, ena vithiyasam* – girl or boy, what's the difference?" she challenges with the conviction of one determined to ensure none.

The pace of change differs. Deep in the Siruvani forest, Seeyangipatti village comprises a cluster of huts around a wooden temple in the clearing. Here, grey-eyed Valliamma, an Irulu tribeswoman, nurses her third child, an infant girl. (Although we are only accidentally in these parts, it is a pleasant surprise to know that Valliamma has actually been visited earlier that very morning by the Village Health Nurse on a monthly schedule round.) "For the operation I will wait till she is a year old. But then, *pothum*. Enough," Valliamma smiles down at her child. By her side, Mahadevi, an older woman, nods encouragingly: "I came to my senses only after I had five. It's been unjust to the children and to me."

"When I first started work in Gandhigram in 1969, even those with five children would turn around and say 'What's it to you? God has given and will care'," reminisces luminous-faced, grey-haired Dr Kousalya Devi, Medical Superintendent of the Gandhigram Kasturba Hospital at Ambuthurai, who is something of a legend in the area. Dr Kousalya and her team handle a yearly average of 4,000-5,000 tubectomies and 1,500-2,000 deliveries, besides an outpatient caseload of 150-200 daily.

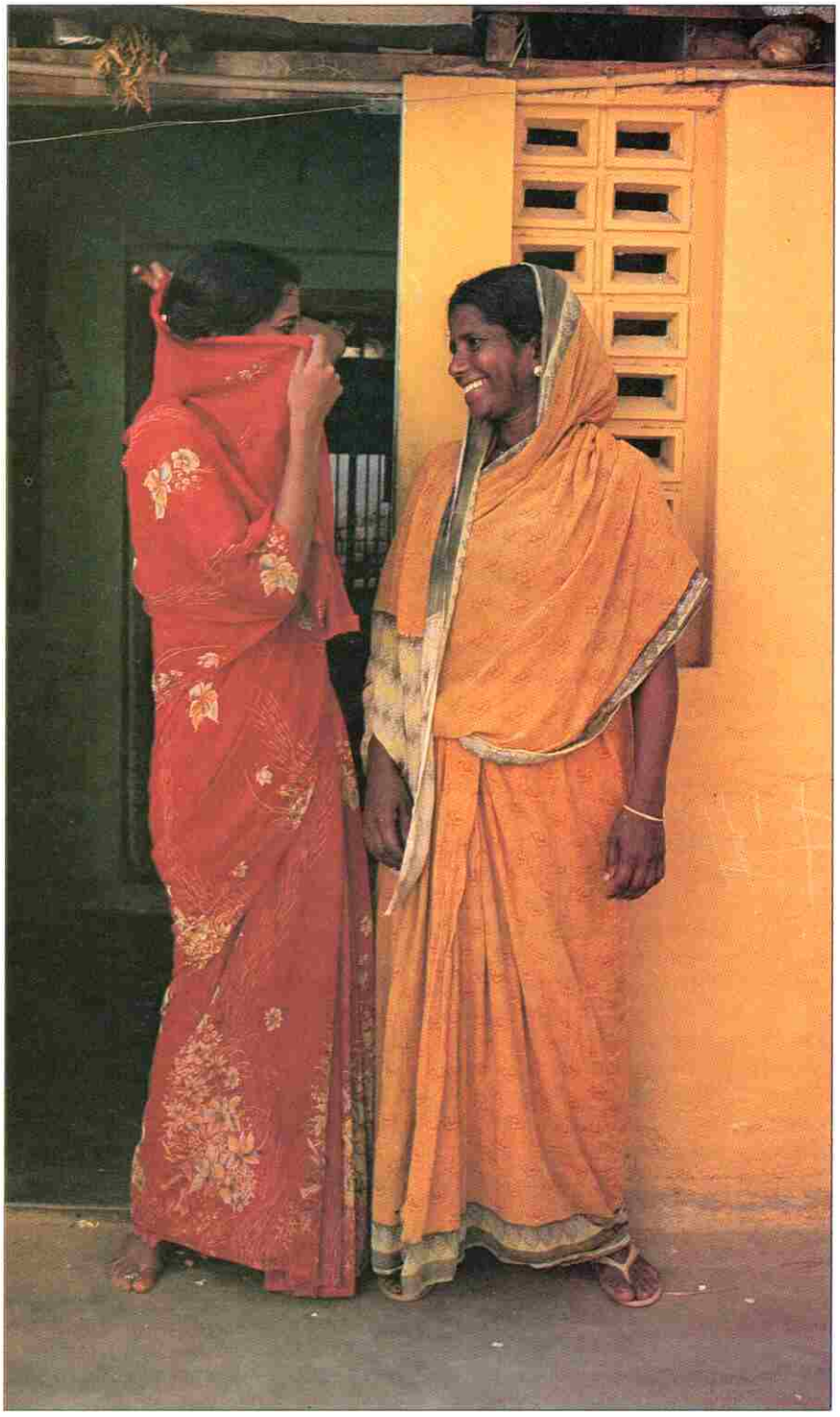
The delivery-cum-tubectomy-recovery ward at the Gandhigram complex is in itself an outstanding example of the innumerable community responsive innovations developed at different levels in Tamil Nadu, which have contributed to family planning forging ahead. The ward, located in a bamboo and thatch hut, has cloth cradles swinging from rafters, woven bamboo mats strewn on the clean mud floors, on which attending relatives squat to care and chat in an ambience familiar to all using the services. This, coupled with Gandhigram's tradition of loving care, has resulted in the ward being christened *ammaveedu* or mother's home: in tribute to the fact that Dr Kousalya has made the hospital stay for the women akin to a fussed-over, rare visit to the parental home.

Dr Kousalya corroborates the statistical trends: "The family size is going down steadily. This year a number of women came to be tubectomized after one child only, including 15 with one girl child. Ten years ago this would have been unthinkable."

The statistics point to fairly spectacular changes in all demographic indicators over the past decade. Since 1984-85 a precipitate decline has taken place in the Crude Birth Rate, which had plateaued around 28 since the late 1970s. By 1991, the CBR had tumbled to 20.7 – below the national goal for the end of the century.

At the same time, the high death and infant mortality rates were effectively dented. By 1991, Tamil Nadu had also succeeded in curbing both to levels below the country's goals of a Crude Death Rate (CDR) of 9 and Infant Mortality Rate (IMR) of 60. In 1991, Tamil Nadu had a CDR of 8.8 and an IMR of 57. While the nation as a whole faced the need to postpone expectations of achieving a growth rate of 1.2 per cent by 2001 – the Northern states of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh remain well over 2 per cent – Tamil Nadu, in 1991, was registering an annual growth rate of 1.1 per cent.

The 1991 Census has shown a decline in the absolute numbers added to the population in Tamil Nadu over the decade. Further, a National Health Survey conducted in 1992 documents



Tamil Nadu's under-five population as significantly lower – by 12 per cent – than its 5-9 age group. This survey also found that the sex ratio had practically equalized, highlighting that the female infanticide cases have only been sordid aberrations. Forty per cent of the married women in the reproductive age groups are already sterilized; another 27 per cent do not want any more children; and, another 12 per cent want another child quickly, presumably to complete the family; leaving only 15 per cent needing or seeking spacing methods. Ninety-nine per cent of women know about tubectomy, and 78 per cent of women use government services. The Total Fertility Rate or the average number of children a women can expect to be born to her in her lifetime was down to 2.2 by 1991. Clearly, the state has reached the final phase of the demographic transition.

Even trenchant critics of government programmes and official claims admit the veracity of the trends. What was the magic switch that activated such a spurt?

The principal lesson emerging from Tamil Nadu's rapidly transforming scene and the hindsight of a decade's distilled experience is that it is neither the result of a single thrust, nor of simplistic shortcuts. Rather, a sustained simultaneous multipronged effort on different economic and social fronts – together with a gearing up of the promotion, reach and quality of basic health care, including family planning – has brought about a remarkable synergy. This has fuelled an exceptional momentum, within a relatively short time-frame.

Tamil Nadu has lacked the long historical backdrop of social development available to Kerala, the only other major state to have made the demographic transition in India. But Tamil Nadu initiated efforts for basic economic and social changes from the 1960s; alongside, the political leadership has kept advocacy for a small family, later marriage and the improved status of women as a central theme in political and social discourse. The 1990s are reaping the benefits.

"Messages of the benefits of a small family through various media and political leadership have been sustained over 15 years now," points out Tamil Nadu's Principal Health Secretary. "But this has gone alongside considerable basic development: a link road and an overhead water tank for protected water supply in every village; total rural electrification; and, with the school Noon Meal programme and the Public Distribution shops, a government institution in every village tangibly delivering to the public. "The state budget for health and education is now over a third of all public expenditure and health inputs are linked by government order to the post-literacy and school programmes. The state hopes to achieve total literacy through a massive campaign in the next two years."

S. Ramasundaram, Assistant Secretary, Health and Family Welfare, adds: "Although Tamil Nadu has not topped the country in any single social or economic indicator – it is near the top overall." By the late 1980s, Tamil Nadu was sixth in per capita income, third in industrialization and urbanization, third in women's participation in the workforce, third highest also in the female age at marriage and sex ratio; and, second – since 1991 – in female literacy. Ramasundaram points out: "The combination of these factors created the context within which a demand for smaller families has surfaced and a geared- up family planning service delivery system could then effectively respond to it. However, the

Left: *Sabira Bi with her daughter Thamimunnisa, who has only two children, both girls.*
Top: *Tubectomy patient at Naravarikuppam.*

Above: *Women arrive in a health centre jeep for their tubectomy operations.*

major demographic impact has only come after young women in their 20s have taken to tubectomy."

"I don't think we can take credit for earlier consciously planning and implementing a coordinated converging development strategy to achieve these results," admits T V Anthony, the State's former Chief Secretary, a long-time family planning supporter and presently, Project Co-ordinator of the Monitoring and Evaluation Task Force set up by the state to oversee the implementation of its comprehensive 15 point Action Plan for the Child for the 1990s. This latter now covers a spectrum of basic needs and related goals, including for maternal health. Tamil Nadu's aim is to expedite a reduction of its birth rate to 15 and average parity to 2 children, while halving IMR, child mortality, morbidity and malnutrition.

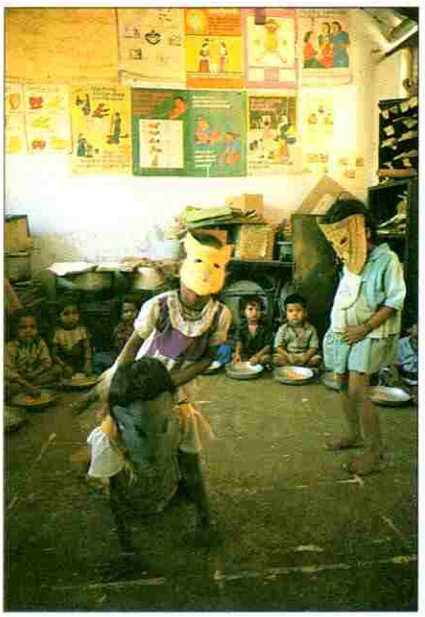
Anthony however singles out Tamil Nadu's Midday Meal programme, introduced in 1982, as a critical catalyst needing special mention. This scheme has provided a hot meal of 100- 150 grammes of rice, alongside a stew of dal (lentils) spiked with vegetables and a gram of oil for every child under the poverty line in school. Initially it was dismissed by administrators, Anthony included, as an expensive political gimmick. (It cost Rs2,500 million a year when introduced and this year's allocation is Rs3,350 million or over $100 million). The World Bank still considers it "cost-ineffective".

But the decade has vindicated the Midday Meal's role in increasing school enrolment, greater retention of girl children and minimization of malnutrition. Comments Dr Rajjamel Devadas, Vice Chancellor of Avinashilingam Deemed University, who has evaluated the programme: "There is little frank malnutrition in this age group now. One-third of all school children – roughly 9 million below the poverty line – are served. The meals are well prepared and distributed. Notwithstanding some element of leakages, its impact is tremendous. It has built a rapport and faith with the community."

Another spin-off of the 40,000 school-feeding centres established since 1982, to which are now added some 25,000 creches and a targeted nutritional programme operating with Central Government and World Bank support, is the local part- time employment generated for over 250,000 women: as organizers for the noon meal; child welfare; and, as cooks, helpers and child care workers. More significant than the meagre income from the work is their new social status within the community. For one-fifth of the work force there is also a four figure salary.

Since the feeding programme also caters for 175,000 old age pensioners and another 425,000 aged are given a monthly rice ration, it has also sown some hope for the development of alternative old age support systems.

Other state sponsored social initiatives focused on women and designed to cover multiple social needs have also helped to create a positive environment for family planning: as for instance, a



Crèche and midday meal centre at Poonamallee.

cash advance of Rs5,000 – to a couple at marriage, provided the bride is over 18 years of age and has completed the 8th standard at school; maternity benefit of Rs300 for nutritional support in the first two pregnancies; marriage assistance of Rs10,000 to a girl whose family's income is below Rs12,000 a year; as also, assistance for widow remarriage and intercaste marriages.

Another new scheme for the girl child provides a start-up gift of a gold ring, staggered education expenses and eventually, a lump sum at 20 – for an only girl child or one of a two female child family, where one parent has accepted a permanent method. This attracted 20,000 couples last year. But 15 per cent of all couples are estimated to be in these circumstances. The scheme's allocations are only token so far.

Within the Integrated Rural Development Programme subsidies and loans have covered 50-55 per cent of women in Tamil Nadu against the national average of 40 per cent; while nearly 12,000 women's groups – 30 in each administrative block – have been undertaking various collective activities for some years, providing a reachable forum.

Most recently, a 10 Point Programme for the Advancement of Women was announced by the Chief Minister, Dr Jayalalitha, a former film star and a controversial figure who now administers the state with a tight personal grip. The policy document sets gender issues on the plane of fundamental societal issues to be tackled across the board as a top priority.

Notwithstanding many positive developments, there is a growing restiveness amongst certain sections of the society, particularly feminist groups. These claim that the state's current, more aggressive and ambitious thrust to quickly accelerate the demographic change process, is at the cost of the poor, most particularly women and girls.

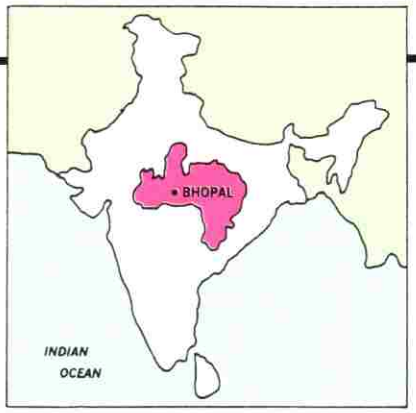
Women activists point with apprehension to the gigantic cutouts of the Chief Minister looming out of street corners and aloft hoardings. Some venture to suggest that the official programmes and achievements are now being similarly inflated; the state machinery is more tuned to public and statistical manipulation, than real service. The ubiquitous images and the sycophantic stamp of Puratchi Thalaivi (Revolutionary Leader) Dr Jayalalitha attached to every new initiative, particularly those for women, are of a piece with China.

Like the China of the 1970s, Tamil Nadu in the 1980s has undoubtedly come far through positive investments in – and imaginative initiatives for – women, children, health and education. No doubt, warned by the happenings in the China of the 1980s, Tamil Nadu needs to watch its step carefully through the 1990s.

A people have responded responsibly and resoundingly to caring inputs that have built their faith in the system's ability to deliver – some today, more tomorrow. They must not now get pushed too fast, only so that the state can make a politically egoistic demographic mark to punctuate the century's end. ■

Rami Chhabra is a well-known journalist and women's rights activist. She is a former Adviser, Media and Communications, to the National Family Planning Programme.

High fertility scars India's largest state



Rudimentary health centre at Kurawar.

Against the backdrop of a Total Fertility Rate of 2.2 and a declining net addition, Tamil Nadu is launched towards stabilizing its eventual population size at no more than 65 million early in the 21st century. In contrast, Madhya Pradesh (Central State) straddling the belly of India, has chalked up the country's highest growth rate in the decade – 26.8 per cent.

MP's net addition – 14 million – has been the largest decadal increment it has registered so far. With this, its population had already escalated to 66 million by 1991. Experts further predict that at the present pace MP – with a TFR of 4.6 at present – will achieve a TFR level comparable to Tamil Nadu only around 2036-41. By then, its population size would probably be over 150 million. Only subsequently, it could be expected to move towards population stabilization.

MP is India's largest state. It has an area – 443,446 km^2 – double that of Uttar Pradesh, India's most populous state. Further, its population density (149 per km^2) compares most favourably with the national average (267) and even better against Tamil Nadu's high of 428 persons per km^2. Why then should MP's high growth rate be of any particular consequence?

A look at MP's vital statistics explains. These unfold a tragic portrait of human misery and trauma directly related to the demographic trap. Over the 1980s, the CBR declined only marginally – from 37.6/1000 to 35.8/1000 in 1991. The CDR more sharply – from 16.6 to 13.8 – but even so is distressingly high. Still more unconscionable is MP's IMR: 117/1,000, the second highest in the country.

Thus, MP remains transfixed in a high fertility/high mortality syndrome that scars its society generally. More particularly, it decimates and physically or psychologically debilitates very large numbers of mothers, their infants and children. A creeping change is to be discerned. But, as of yet, it remains far too little and much too slow to kindle hope on any scale.

Kaushalya, a 32-year-old peasant woman in Pillukhari, a village some 50 km south of Bhopal, MP's capital city, is one poignant human dimension of the existing equation.

Kaushalya is six months pregnant with her ninth child. Of her earlier children, only five are alive, the first three having died within days of their birth. The eldest is 8 years old and the youngest 2. They hang around her half-naked, barefoot, unkempt and obviously underfed. Kaushalya's husband is away at work in a beer factory where he earns Rs650 ($22) a month.

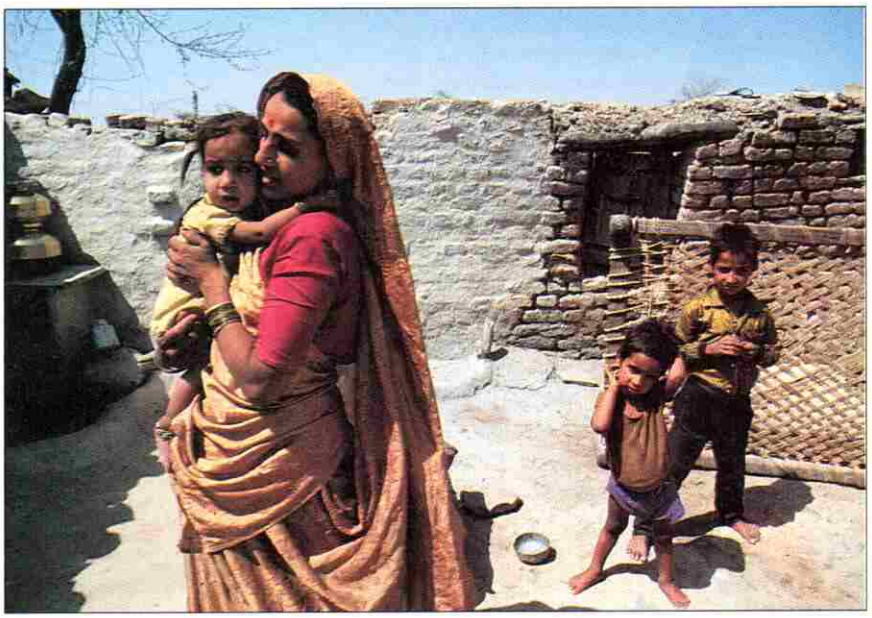
"I have not known what it is not to be pregnant or breast- feeding since I married," Kaushalya says. "I am ashamed to even talk about it. It is not that I have not pleaded. *Maine khub kahi par kate nahin suni.* I wanted to get the operation done after three had survived. I told him now it is different. It is OK, they are living. But he wouldn't listen and gave me *jari booti,* local medicine, which didn't work. In any case, the doctor said I didn't have enough blood and should come back after regaining strength. One by one, another three have come – all the while I have been saying... 'This time I am determined to get rid of it'. I even went all the way to the hospital on my own, but the doctor wanted a thousand rupees. From where do I get it? I am so tired. It is all right for him – no doubt he works all day, but in the evening he must have cooked food before him. I walk more than a furlong to fetch the water for cooking and drinking – rain or sun, well or ill. These children are too small to help. I wish I were dead, there is nothing inside me though I may look big. This time, if I live, I will get the operation done, no matter what happens."

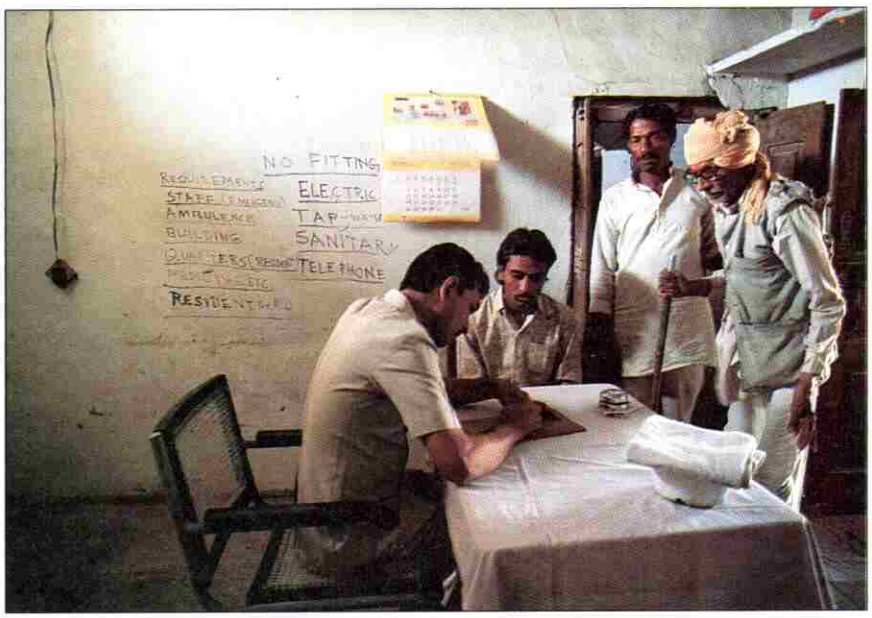
The numbers of the Kaushalyas in MP are legion. Which is why of the 330,000 women seeking sterilization in MP last year, more than 55 per cent were with four or more children. Kaushalya lives in a fairly accessible village at least. Others are harder to reach. A recent exercise undertaken by the Indian Government, to target special inputs into the most backward areas, identified 90 districts in the country as the most difficult, on account of the worst demographic indicators: these include a birthrate of 39 plus, low female literacy, low age at marriage, general economic backwardness. Twenty-three of the 90 districts are in MP. Kaushalya's village is in one of them.

"MP's size has been its colossal disadvantage," points out Mahesh Buch, a former Chief Secretary of the state and now Director, National Centre for Human Settlements and Environment. "There just hasn't been sufficient input to develop basic infrastructure. Transport and communication remain weak. Within the rural areas villages are so widely dispersed that the per capita cost of delivering a service becomes very high. "Over 34,000 of MP's 71,000 inhabited villages are more than 6 km from the nearest metalled road.

"The basic infrastructure has a direct bearing on the health services," observes Gopal Shukla, the State Health Secretary. "A health worker on an average has to cover a radius of 33.5 km – twice the national average and fivefold the distance needing to be covered by a health worker in Kerala or Tamil Nadu to carry out routine duties. Yet we receive the same inputs as those states. Further, providing a residence is a must if we want to ensure a female worker in rural areas".

This year all but 800 of the 12,000 posts of the female village health nurse have been filled. But three-fourths of these subcentres have no buildings. Rented buildings are not always suitable. The situation is equally bad for the Primary Health Care Centres, and even worse for the Community Health Centres (CHC), where specialized gynaecological and paediatric care is meant to be available to form the con-





Top: *Kaushalya at home with three of her living children.*

Above: *Awaiting treatment at Pilu Kheri health centre.*

tinuous referral chain for primary health care. Only 190 out of 459 blocks have a CHC, only 44 have buildings. New initiatives are being taken to recruit doctors for remote areas, but they will need facilities to function.

But investment in the health sector is less than 3 per cent of the total state plan. A policy paper estimates that MP needs a minimum of Rs10,000 million ($320 million) to fill in the gaps in its primary health care infrastructure, to reach the laid-down minimum national norms; and a further Rs2,000 million a year for recurring expenses for their adequate functioning. The present total allocation from the centre, state and external support is around Rs4,000 million.

"The education budget is similarly below 3 per cent. The bulk of it goes into salaries and the maintenance of the old decrepit buildings; funds for education activities are marginal," Buch points out, adding : "Forty per cent of the tribal population of the country is in MP, constituting a quarter of the state's population. The scheduled castes account for another 15 per cent." One result of this is that MP's literacy rate lags behind the nation by a full decade and its female literacy in 1991 was only 28.8 per cent.

Although women's work force participation is high in Madhya Pradesh, it is heavily concentrated in agricultural, manual activities. Economic activity in these circumstances is not a liberating force, but only the third dimension of a triple burden: production added to reproduction and domestic work.

Two-thirds of girls in the age group 15-19 are married. The tradition of child marriage also persists in significant parts. Thirty-three of MP's 45 districts reported a female marriage age below 16 years in 1981, 20 below 15.

In the circumstances, women in their twenties – with more than two decades of reproductive capacity ahead – are already exhausted multiparity mothers. Presently, the family planning programme is still catering, mainly, to such desperation-driven matrons whose very visible distress enables them to cross the social and medical barriers. The high rate of attrition from amongst acceptors is the focus of considerable criticism. It is insufficiently recognized that catering to this older or high parity segment is servicing the most needy women and preventing the most dangerous, higher parity births. Only with a "critical mass" of well satisfied older women acceptors – the mothers and mothers-in-law – can change accelerate for younger women, as is happening in Tamil Nadu today.

On the positive side is the fact that, already last year, over a fifth of family planning acceptors of permanent methods were those with two children. In the current year, a massive thrust for IUD promotion – alongside, training of the health workers – has tripled its use.

At another end, a momentum is being generated to educate the community on the evils of early marriage. Voluntary organizations have been supported by a communication campaign placing great emphasis on folk media.

Door to the X-ray darkroom at Narsinhgarh Hospital after part of the building collapsed.

"We prevented 1,000 child marriages last year," says Anita Das, Secretary, Social Welfare, Women and Children. "But the traditions of centuries cannot be wiped out overnight."

Some other positive social initiatives are now taking shape. The World Bank is supporting an effort to widen the spread of the Integrated Child Development Services Programme. This is being strongly linked to the health delivery system through joint training at all levels of child care and health workers. A major EEC-supported project is in the pipeline to promote credit access to women, improve marketing for their products, and to link this up with the health and family planning services.

One tangible evidence of a new vision for integrated intersectoral efforts and convergence of services are over 1,000 child care centres that have been built under the Nehru Rural Employment Guarantee Scheme, many integrated with a subcentre complex. Another 1,000 such centres are to be built in the current year. Through a focus on the child MP claims to have lowered IMR to 104 in the past year. The World Bank assisted Child Survival and Safe Motherhood project (CSSM) has had an enthusiastic start in six districts.

The health delivery system is being consolidated and energized through decentralized district training efforts that seek to enhance technical capabilities of the staff on the one side and build community support on the other. MP is now seriously pursuing the implementation of a national initiative to mobilize the community through networks of Village Health Committees and 'link-persons' in the community who interact with the frontline health workers.

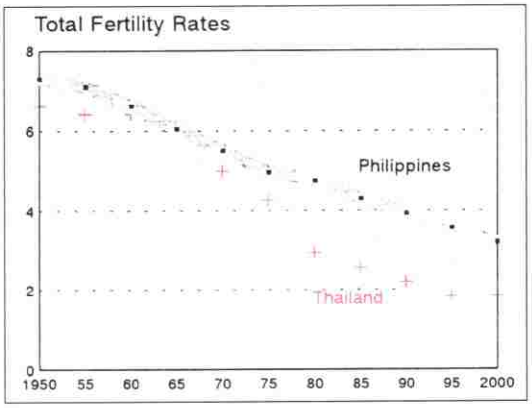
That something is finally stirring at least in some parts is evident in Dhar, a tribal district on the western edge of MP. A dynamic young Chief Medical Officer has amongst other things, spruced up every health facility in the district – through donations for paint and the voluntary labour of the health staff itself. Perhaps, the first time such an initiative has been taken in these parts. The equipment varies, but the village health nurses are in position; and, the *dais*, the trained birth attendants, are able to tell the "five cleans". Elsewhere, traders have contributed a handful of grain from every truck coming to the market,to build a needed residence for the hospital nurse.

Small beginnings, but a sharp contrast to the scores of grimy, grossly inadequate places that pass for health centres in many of the districts.

Yet it's a long, long way from Tamil Nadu in just about every way. The extent of the attitudinal change needed, alongside improvements in the delivery of services, is poignantly captured in the scene I witness on the banks of the Narmada, the river considered in MP to be so holy that it is said to merely see it is to wash away one's sins. Fragile, worn and thin, Biman Devi, a migrant labourer, stands bathing in the holy waters, splashing the sun's face in gratitude for the blessing in her arms: a son born after the four daughters that straggle alongside. Biman Devi is poor and illiterate. But in Bhopal, the state's Thakur-born Chief Minister, 48-year-old Digvijay Singh, has just similarly propitiated the gods for the birth of his fifth child – at last, a male heir, after four mere daughters. ■

Rami Chhabra

Our comparative report from South-east Asia looks at Thailand and the Philippines. It is written by *Gayl D. Ness*, **a sociologist and demographer who has worked on population and development issues in the region for the past 30 years.**



PETER CHARLESWORTH

Left and bottom left: *The two-child family is now the norm in Thailand.*
Below: *Learning about condoms as a protection from AIDS in Thailand.*

Heroes and villains in an Asian population drama

PETER CHARLESWORTH

"Had political and religious leaders been more interested in promoting planned parenthood... rather than lining their own pockets and protecting a dubious morality, the Philippines might look different today."

Few comparisons can better show the benefits of good family planning, and the costs of neglect than that between Thailand and the Philippines.

Consider the basic facts. Both countries had populations of roughly 20 million in 1950. At that time, however, the Philippines was more developed than Thailand and had decidedly higher levels of human welfare. Its per capita GNP was higher; it was more urbanized; its infant mortality rate was lower, and its female primary school attendance higher than Thailand.

Both countries experienced the beginnings of private family planning work in the mid-1960s, and moved tentatively toward an official fertility-limitation policy. Both finally made the official policy decision to develop a national family planning programme about 1970, and both received considerable foreign assistance for those programmes. Until about 1978 both seemed to be making comparable progress in developing good services and in raising contraceptive use. But then things took a different turn. Thailand pressed on, while the Philippines back-tracked, neglecting and even retarding its programme.

NANCY DURRELL MCKENNA/HUTCHISON LIBRARY

The direct demographic result is clear. Thailand's contraceptive use rate is about 65 per cent; its total fertility has fallen to 2.1, or replacement level, and its population is 57 million. The Philippines contraceptive use rate is well below 40 per cent; its total fertility rate is still almost 4 (3.93), and its population stands at 64.4 million.

Not only does the Philippines now have 7.4 million more people than Thailand, its infant mortality rate is now higher than Thailand's (40 versus 26). Although it remains more urbanized and with higher levels of female school attendance than Thailand, it is poorer and shows more stress from population growth than does Thailand.

The environmental and human costs of neglect in the Philippines are highly visible, though they seldom get the kind of statistical treatment that permits precise comparison. The movement of

farmers to mountainous marginal land appears greater in the Philippines, with increasing soil erosion and land degradation. The most tragic costs, however, are seen in hospitals all over the country. Many Filipino doctors point to wards filled with women sick and dying of botched illegal abortions, and speak of this as the country's major medical problem. In Thailand, such sickness and deaths are very rare.

And while things will continue to improve for Thailand, there may be worse to come for the Philippines. The UN 1992 World Population Prospects *reduced* its previous estimate of Thailand's 1990 population by 1 million. UN projections expect Thailand's total fertility rate to be well below replacement level, at 1.85, by 1995. The Philippines is not expected to reach replacement level (2.1) until 2015, by which time it will have *20 million more people than Thailand*.

Thailand has already experienced some decline in the numbers entering primary school and by the end of this decade, it will begin to feel the reduction in people entering the labour force. The Philippines will see increases in its new school and labour force cohorts until well into the next century. This will mean continued pressures for social services, land and for jobs.

How did this happen? Why did Thailand move ahead so much more rapidly than the Philippines? And what are the lessons we can learn from this?

Some things can easily be ruled out as important. Both received substantial foreign assistance for population work. Indeed, when it was back-pedalling on family planning in the 1980s the Philippines received even more assistance than Thailand (US$83 million compared to US$66.5 million in 1982–90).

Both had good government and private local level leadership in population and social services in the early years. Mechai Viravaidya in Thailand and the Jesuits in the Philippines provided strong legitimizing arguments, and both governments built sound programme organizations.

The real difference lies at a higher level, at the top of national leadership, and it is not simply a matter of neglecting family planning, which did not happen until later. In 1969, President Marcos became the first Philippine president to win re-election. Almost immediately he announced that the country would have a national family planning programme, with the aim of reducing population growth through reducing fertility within marriage. The Philippines thus became the first Roman Catholic country to adopt such an official policy. This clearly showed the impact of the regional political environment, where the Philippines was linked to other Asian countries through ECAFE/ESCAP.

Through the early 1970s, the Philippines built a new organization for family planning. Not untypically it was highly centralized in Manila, and was far too much a talking programme, with high allocations for communication work. Only gradually did resources begin to trickle down to service delivery in the provinces. By about 1977/8, however, the programme began go to the village with a larger number of outreach workers, and the 1978 round of surveys showed an increase in the number of couples using an effective form of contraception. In addition, the private sector began to push natural family planning.

At the end of 1978, however, a change in the leadership of the National Economic Council, which directed all programmes, effectively called a halt to family planning. Emphasis and funds were to be shifted from family planning to education, not to sex education, but to education that would include some emphasis on national problems, including population. By this time, too, the true nature of the Marcos government

HELDUR METOCNY/STILL PICTURES

HELDUR METOCNY/STILL PICTURES

RIGHT: PETER CHARLESWORTH

Top: *A poor village in the Tondo district of Manila, Philippines.*
Above left: *Children of the village.*
Above right: *Children at a Manila primary school*

Health Secretary Juan M Flavier (seen here with his wife Susan), believes the Philippines needs a strong population programme. But he says he does not wish to quarrel with the Catholic Church. Dr Flavier says he is willing to promote any method which will help the country manage its population size including natural methods.

To cool relations with the Church, the Department of Health has, this year, focused its efforts on women and child health. It has adopted the slogan "If you love them, plan your family" The policy seems to be working. *Linda Bolido*

came into clearer focus. An emergency had been declared, democratic pressures from below were choked off, and the great personal raid on the treasury gained momentum. This meant a decline in all social services, including education and primary health care. By 1980 the infant mortality rate in the Philippines stood at 45, while Thailand had reduced its rate to 32.

The corruption and administrative destruction of the Marcos government finally brought such revulsion that he was ousted from office by a popular movement, known as People Power. It was led by Mrs Corazon Aquino, wife of one of Marcos' most effective opponents, who paid with his life for his opposition. Cory Aquino became the Philippines' first female president. Her People Power movement owed its success in large part to a combination of the military and the church. Fidel Ramos, the current president and then Chief of Staff, pulled the military away from Marcos' attempt to bludgeon the people into accepting his rigged election and continued rule. The Church leadership stood back from the fight, but the nuns mobilized to protect ballot boxes and stood in front of the tanks.

Mrs Aquino owed the church a great deal. Even more, she herself is a devout Roman Catholic and though she could clearly see the plight of women dying from abortions as a result of unwanted pregnancies, she could not bring herself to collide with the Church leadership over family planning. There was some restoration of primary health care under her leadership, but family planning remained obstructed.

That has now changed, with a new president, Fidel Ramos, and his new Secretary of Health, Juan Flavier. Long years providing medical services to the rural poor have given Flavier both personal experience and high dedication to the promotion of primary health care and family planning together. It is a fair guess that success in these efforts will bring a decline in fertility, perhaps even faster than the UN projections foresee. The high abortion rate clearly says women want help in controlling their fertility; the 'unmet demand', about which demographers often talk (and argue), is clearly substantial.

The lesson is clear and has many implications. Family planning programmes today represent a stock of technology and knowledge that can be used to bring a better balance between population and the environment. When this is done, the pressure on the environment is reduced, as well as the need for more education and health services. There are delays in the impact, of course, but there are short term gains, as well. Of greatest importance are the immediate effects on human health, especially on the health of women and children. And because of widespread poverty and the urban biases of most government services, these effects are most pronounced on poor rural women and children, those left behind in most development programmes.

Philippines' political and religious leaders bear a heavy responsibility. Had they been more interested in promoting responsible parenthood and providing good social services rather than in lining their own pockets and protecting a dubious morality, the Philippines might look different today It might have 6 or 7 million fewer people, less pressure for land and jobs, less soil erosion from inappropriate upland farming, and it would certainly have far, far fewer deaths from botched illegal abortions. ■

Gayl D. Ness is Professor of Sociology and Professor of Population Planning at the University of Michigan. He is presently on secondment as the University of Michigan Population Fellow for IUCN in Gland, Switzerland.

Secrets of success in southern Africa

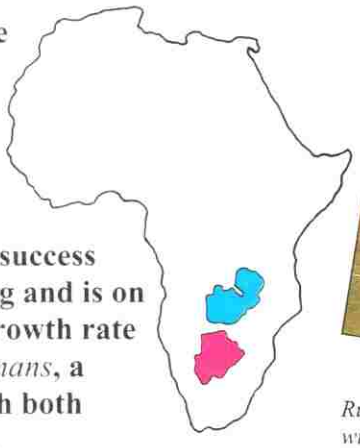
"I had a child when I was quite young because I thought I wouldn't get pregnant and I didn't know about taking Pills. I don't want another until I have received my certificate for business administration. I can't afford another child at the moment," said Thata Mothibi, a 26-year-old receptionist in Gabarone, Botswana.

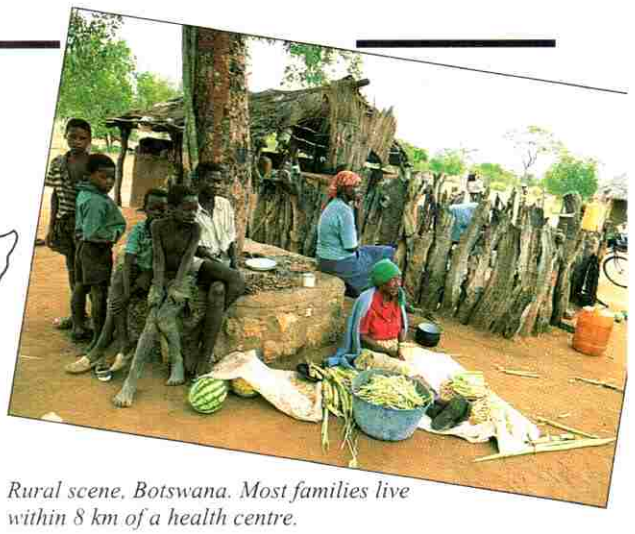
Botswana's population growth rate is estimated to average around 2.8 in the present decade, down from 3.5 in the previous decade. The Central Statistics Office estimates that the population will increase from 1.3 million in 1991 (the year of the latest census) to 2.3 million by 2011, doubling in about 25 years. Most people are concentrated in one-third of the country. Life expectancy is rising and infant mortality rates are declining. And Botswana's population is young, 60 per cent is under 30. These trends, for a drought-prone country the size of France, only 2.4 per cent of which is arable, could spell trouble in terms of environmental sustainability, employment and the provision of social services.

The good news, however, is that the long-term prospects are more hopeful. Studies show that the government's Maternal and Child Health and Family Planning Programme (MCH/FP), which aims to make family planning accessible to all, is beginning to reach people. Government statistics show a substantial decrease in Botswana's fertility rate from 7.1 in 1981 to 5.0 in 1991. According to the 1988 Botswana Family Health Survey II, 95 per cent of women questioned knew of a modern method of family planning. Of reproductive-age women, 19 per cent were using a contraceptive method in 1984. By 1988, this figure had risen to 33 per cent, exceeding the Government's target of 25 per cent. For 1991 to 1997, the Government's targeted contraceptive prevalence rate is 40 per cent, a

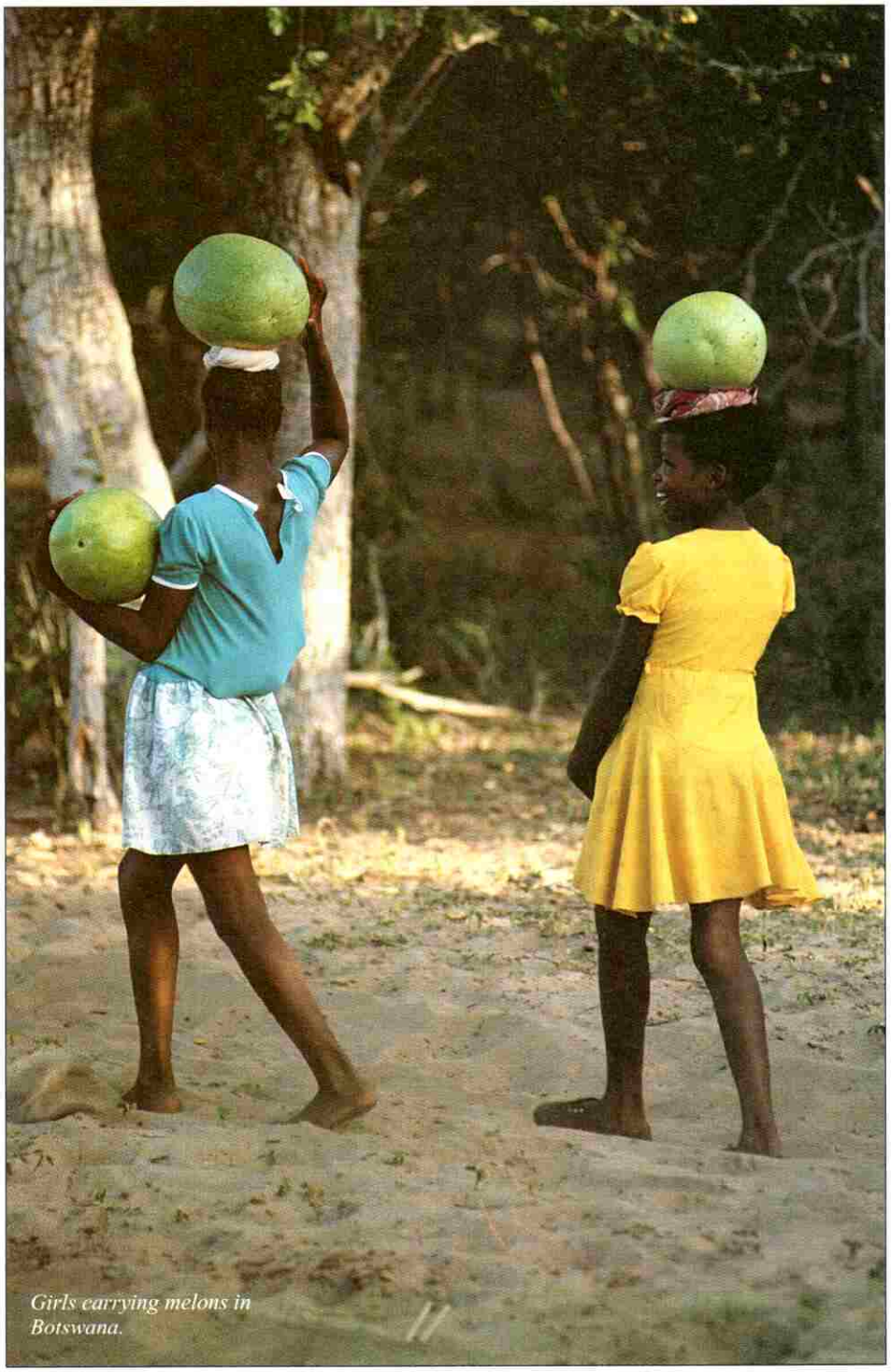
Botswana and Zambia

Botswana and Zambia are roughly the same size – Zambia being slightly larger. Though its per capita income is higher, Botswana has only a third of the arable land available to its northern neighbour and is much less urbanized. Yet it has had much more success in spreading the use of family planning and is on course to bring down its population growth rate rapidly in the years ahead. *Tessa Hermans*, **a Botswana journalist, travelled through both countries to discover the reasons why.**





Rural scene, Botswana. Most families live within 8 km of a health centre.



Girls carrying melons in Botswana.

ALL PICTURES: ILLUSTRATIVE OPTIONS

seemingly realistic goal.

How has Botswana achieved this measure of success? Botswana has no official population policy, but the Ministry of Finance and Development Planning recently formed a National Council on Population and Development which is drafting one. For achievements so far, the Council credits the MCH/FP programme as well as better access to education and employment for women. In 1990, 35 per cent of the workforce was female and for every 100 males enroled in secondary school in 1990, 114 females were enroled.

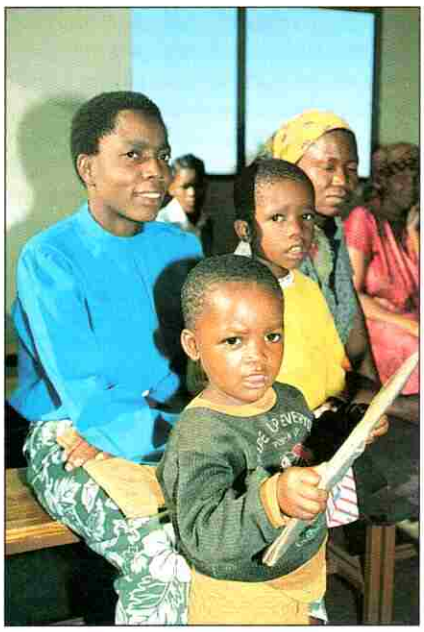
Dr Pearl Mashalaba, Chairman of the Botswana Family Welfare Association (BOFWA), believes Botswana is on the right track for other reasons as well. Family planning was accepted by the Government as early as the 1960s. "Other African governments thought you couldn't tell people to regulate their fertility," she said. But Botswana's first President Sir Seretse Khama, although he disapproved of telling people how many children to have, believed in encouraging parents to space their children and use modern family planning methods. While in most other African countries voluntary family planning associations took the lead in this matter, in Botswana the Government itself did so.

The Ministry of Health initiated the MCH/FP Programme in 1973, about the time that fertility trends started to decline. Family Welfare Educators (FWEs), work within each community to spread the message of family planning and general health. "The message is carried on by nurses when people visit the clinics. And contraceptives are always available," said Dr Mashalaba, who worked for the programme for eight years.

For years, the Ministry of Education resisted teaching youngsters about family planning, leaving that responsibility to women's and Christian

NGOs. But in the early 1980s a family life education course became part of the school curriculum. "It was a step forward because children had so many crazy notions – that sex would cure acne or help the blood circulate," said Dr Mashalaba, who hopes contraceptives will be available in schools one day.

BOFWA, an IPPF affiliate, was formed in 1988 with the specific aim of educating young people. It conducts workshops for teachers and addresses PTA meetings to encourage parents to talk to their children.



Above: *Mothers and children at a health centre. Most people are within reach of a health facility.*

BOFWA and other groups also discovered that teenagers are scared of visiting the clinics, which may explain why a quarter of Botswana's female teenagers were mothers in 1988. "They fear they might see a neighbour or auntie at the clinic, who will tell their parents and get them in trouble," said Mashalaba. The last family health survey found that 72 per cent of 15 to 19-year-olds knew about contraception, but only 20 per cent were using methods. Teens clearly are getting the message, but not the protection. BOFWA now aims to have Youth Counselling Centres countrywide, which will be friendly to visit.

BOFWA tries to sensitize community leaders, most of whom are male. "We have male presenters for these meetings, to show that family planning is a man's business too," said Education Director, Callie Ramalefo. Many men in Botswana do not approve of their women using contraception because they believe it promotes unfaithfulness.

Communication efforts mesh well with the availability of health services in Botswana. According to government figures, 86 per cent of the population is within 15 km of a health facility, and 73 per cent are within 8 km. Once motivated to seek family planning, however, villagers don't always find the health centres user-friendly.

At the Gabane Clinic, Nurse and Midwife Edith Wabo is among four nurses who must tend to about 50 adults and 100 children a day. Approximately six clients a day seek family planning counselling. On average, clients must wait 30 minutes to an hour to be helped.

But Edith Wabo's attitude is positive. People are getting the message. Women, after being examined and counselled, "always come back for more Pills or other contraceptives, which they get for free." The films she shows at schools, "really help bring young people in." Some teens are afraid to come, Wabo admits, because traditionally girls should not have sex until they are 20. She has, however, seen mothers bring their teens to the clinic, which shows a growing acceptance of adolescent sexuality. In 1987, the Government ruled that children do not need a guardian's approval to get contraceptives.

Most agree, and statistics show, that Botswana's populace is increasingly accepting family planning, thanks to the community-based efforts of the MCH/FP and NGOs. Among the payoffs is a rapidly decreasing infant mortality rate, which "assures people that their children will survive so they don't need to have so many," said Dr Mashalaba. And Botswana's maternal mortality rate is half that of Zambia's.

Obstacles still to be overcome are cultural attitudes, misinformation and fear, particularly amongst teenagers and slow service in clinics caused by manpower shortages. According to Innocent Modisaotsile, acting head of MCH/FP, staff need improved counselling skills. All this would keep close the gap between knowledge and practice of family planning.

BOTSWANA	ZAMBIA
Population 1991	
1.3 million	7.8 million
Population growth rate	
3.5%	3.6% 1980–91
2.8%	3.0% 1991–2000
Population density per 1000 hectares 1991	
22	113
fertility rate	
5.0 (1991)	6.5 (1990)
7.1 (1981)	7.2 (1980–81)
Contraceptive prevalence rate (1985–90)	
33%	15%
Infant mortality rate – per 1000 live births	
45	107 (1991)
71	87.6 (1981)
Maternal mortality rate per 100,000 live births (1988)	
300	600
Life expectancy (1991)	
Females – 70	Females – 50
Males – 66	Males – 47
Percentage of population living in urban area	
28%	50% (1991)
2%	17% (1960)
Arable land – as % of land area (1989–1990)	
2.4	7.1
GNP per capita (1990)	
US$2,230	US$420
Women in labour force (1990)	
35%	29%
Females per 100 males enroled in secondary education (1990)	
114	59
Population per doctor	
6,900	7,150
Percentage in absolute poverty (1977–89)	
50%	71%

Why success is so important, was stressed by Servala Tumelo, Chairman of the National Council on Population and Development:

"Botswana's rapidly growing population is putting a lot of pressure on the natural resource base. In South-eastern Botswana, particularly, fuelwood and water scarcity continue to be serious problems. Because livestock numbers have grown along with the population, rangeland degradation has increased.

"And population growth is outstripping the provision of social services such as education and medical care. Facilities can't expand fast enough to meet the growing demand. But, fortunately, the economy has done well and so far government has had the revenue to make improvements." ■

Zambian women's needs not being met

"I want as many children as God gives me. In our culture, children are an asset," said Beauty Lwembe, a 24-year- old, married mother of two who lives in Lusaka, Zambia.

Unlike Botswana, government-sanctioned family planning is a relatively new concept in Zambia, so for many years people were encouraged to "go forth and multiply." The 1990 census revealed a population of 7.8 million, up from 5.7 in 1980. Its population growth rate is slightly higher than Botswana's at 3.1 per cent, with a doubling time of 23 years. About half of the population lives in urban areas and 49 per cent was under 15 years old in 1988.

Zambia's family planning record is poor compared to Botswana's. The fertility rate has decreased only slightly in the past 20 years, from 7.1 to 6.5. The 1992 Zambia Demographic and Health Survey (ZDHS) shows that by age 19, two-thirds of Zambian women were mothers or pregnant with their first child. Although 87 per cent of married women in Zambia knew of a modern contraceptive method and where to get it, only 15 per cent were using one. One-third of married women wanted to avoid having more children or delay their next pregnancy for at least two years, but were not using contraception. Why aren't women's contraceptive needs being met?

A glimpse at Zambia's political past gives some clues. Before President Chiluba came into power in 1991, Kenneth Kaunda's conservative United National Independence Party (UNIP) was slower to accept family planning than Botswana's more liberal government. When the Planned Parenthood Association of Zambia (PPAZ), began promoting family planning in 1972, the Government rejected the concept.

"The Government equated family planning with neo-colonialism; it was foreign idea, a way for the white man to reduce the number of Africans. For the next three or four years, leaders of the Association were persecuted, some even put in prison," said Moses Mukasa, resident representative of the UNFPA in Lusaka. The UNIP Women's League campaigned to have the PPAZ banned and the Ministry of Health, backed by powerful and pervasive Catholic groups, ruled that no contraceptives could be distributed in government clinics.

It wasn't until the late 1970s that Zambia's government, under pressure from IPPF, started to accept family planning, but only in state hospitals. It called on the newly-arrived UNFPA to help start a Health Education Unit and an MCH/FP programme, which then focused more on maternal and child health than family planning. PPAZ, the Government said, could refer people to government clinics, but could not distribute contraceptives, an attitude that has since changed.

A breakthrough was the first National Population Policy written by the National Commission for Development Planning (NCDP). Accepted in 1989, the policy gives an official green light to NGOs and a blueprint for action to relevant government bodies. The goals? To make family planning accessible to at least 30 per cent of the population by the year 2000 and to reduce population growth, fertility and infant mortality rates significantly.

BOTH PICTURES: RON GILLING/PANOS PICTURES

Top: *A large crowd waits for clinic services.*
Above: *Women returning from the fields*

Government provides 60 per cent of medical services with over 1,000 facilities. But only in some of these, usually the larger ones, are nurses and community health workers trained to provide family planning counselling and supplies. "For a long time health care workers felt it was the responsibility of NGOs like PPAZ to provide family planning, not theirs. Now they are being held accountable for high pregnancy rates, low contraceptive prevalence rates, high dropout rates, and so on," said Christine Kakoma, PPAZ Programme Officer. PPAZ, with its active Lusaka clinic, five regional offices and strong outreach programmes, now works in close collaboration with the Ministry of Health.

According to Kakoma, what little

extension work nurses and community health workers do is usually limited to immunisation and nutrition. "There is a definite lack of knowledge amongst teenagers... it's taboo to discuss sex in our culture. Many teenagers who come in for contraceptives for the first time have already had a baby. It's quite a problem for us," said nurse-midwife Agnes Maunde of the understaffed Chilenje Clinic, who suggests a less public facility for teenagers.

As for the accessibility of services, "in terms of distance to health facilities, the ideal target is 8 to 12 km, but you have people living as far as 20 to 25 km away, especially in the more remote parts of Zambia, such as the Northern Province," said Dr Mary Ngoma, head of Zambia's MCH/FP service. "And trying to get contraceptives from the Lusaka Medical Stores to the districts has been difficult."

TESSA HERMANS

Besides logistical snags, cultural beliefs may be a large part of the problem. "We know that among women, awareness is high, but practice is low. We need people to actually make the decision to use family planning," Dr Ngoma explained. "A large family is part of our culture. A man with a big family is a big man. If a woman doesn't produce a lot of children, she fears her husband will look for a more fertile woman," said Noria Musonda, a family planning nurse at Lusaka's University Teaching Hospital.

Nurse Tamara Kavimba added, "We met one woman who had eight children and she was only 32. She came in for contraceptives so she could have a rest. Then she wanted to go on having children." According to the ZDHS, the mean ideal number of children was nearly six. However, said Dr Ngoma, "the old story of the proud African man with the 'football team' is slowly falling away because of hard socio-economic facts."

A new supportive government and the attention of a host of donors could mean improved family planning services. USAID, Britain's ODA, UNFPA and the Swedish aid agency (SIDA) are ready to fund new projects. Top priorities this year are contraceptive logistics, communications, contraceptive social marketing, community and employer-based distribution, operational research and safe abortions.

TRYGVE BOLSTAD/PANOS PICTURES

Top: *A large rural family in Zambia.*
Above: *Noria Musonda and Tamara Kavimba, family planning nurses in Lusaka's teaching hospital.*

"The potential to improve our contraceptive prevalence rate is very great," said Dr Ngoma. To prepare for this influx of funds, the UNFPA created Zambia's first structured plan of action, the National Family Planning Programme, in collaboration with the NCPD, MCH/FP and NGOs. Uniting government and donors, it has targeted a contraceptive prevalence rate of approximately 30 per cent by the year 2000.

The programme offers hope, but if it fails to curb Zambia's population growth, people's lives will not improve. The country's 1990 GNP per capita was US$420, a pittance compared to Botswana's US$2,230. Of the total population, 71 per cent were living in absolute poverty.

According to Mukasa, "The economic growth rate has decreased while population has continued to increase. Zambia is the most urbanized country in Sub-Saharan Africa, but most cities were designed for a fraction of the people they now house. Hygiene is a problem, water has become contaminated, and there is a lot of air pollution.

"Where people are concentrated, the use of charcoal and fuelwood as energy sources is very prevalent. A great deal of woodland is being destroyed without an equivalent planting effort. And the communal system (whereby livestock owners share grazing land) has led to overgrazing, especially in the Southern Province," Mukasa explained.

"Almost 80 per cent of children can't proceed from primary to secondary education simply because there aren't enough schools," said Mukasa.

Although a tropical climate makes Zambia conducive to farming, only 7 per cent of the land is arable and life is a struggle, especially for women. Perhaps because they start having children young, half as many girls were enroled in secondary schools as boys in 1991.

Zambia is one of the only African countries where abortion is legal under most circumstances, yet an increasing number of women are injured and killed by unsafe operations because ignorance of the law, the attitude of medical staff and cumbersome bureaucratic procedures restrict the number of legal abortions. The current maternal mortality rate is uncomfortably high. The infant mortality rate, 107 deaths per 1,000 births, is encouraging women to have 'backup' babies, say family planning experts. Even more worrying, the child mortality rate has risen recently to 191 deaths per 1,000 births – a 15 per cent increase from the 1977–81 figure.

In this situation, improved family planning services are an imperative. ■

In a striking introductory chapter to this year's *State of the World Report* from the Worldwatch Institute, *Sandra Postel* warns that consumption by the planet's growing population is outgrowing basic resources of almost every sort. Here, she explains those concerns and sets out what actions she would like to see emerging from the International Conference on Population and Development.

JOHN ROWLEY

'Cairo must address the equity issue'

People & the Planet: **The 1994 *State of the World Report* puts a lot of emphasis on the question of equity in the world: a world in which the top 20 per cent are getting very much richer and the bottom 20 per cent are getting poorer. Could you explain why you think that is such an important question for the environment and how it relates to the issue of population and development?**

Sandra Postel: There are two important points to be made here. First, with such tremendous disparities in income, we have excessive consumption by the 20 per cent of people at the top, which is fostering environmental destruction. Equally the excessive poverty of the one billion people in the lowest part of the income spectrum also fosters environmental destruction, because these poorest people often have to degrade their own local environments just to survive. So, this growing chasm of inequity is fostering environmental destruction at both ends. To promote more sustainable use of resources, greater equality is thus an important factor.

The second point is that our analysis shows that we are in for some very dramatic reductions in the per capita availability of basic resources: specifically, water, cropland, rangeland, forests and fisheries. In other words we already have a 'full world' now. If the poorest of the population is going to have an increased standard of living, then room has to be created by the upper income people. That's another important reason for the focus on redistribution: to create some ecological space to raise the living standards of the poor.

What policies would you like to see adopted to address this very difficult question?

There are a few very important ones. In terms of reducing excessive consumption, I think environmental taxes are still probably the most efficient and most useful way of making consumers realize the full cost of what they are doing. We can begin by putting taxes on pollution and resource depletion and if it is desirable from the fiscal point of view, lessening taxes on income to prevent these taxes from having a negative impact on the economy. This would shift the tax base in a way that's revenue neutral. And it would start to tax things we want to see less of – pollution and resource degradation – and would reduce consumption of resources by the rich.

In terms of aid, I think we need to see a renewed commitment to poverty alleviation on the part of the wealthy countries. We need a dedication of that aid to truly sustainable development, rather than aid budgets reflecting strategic or military priorities.

In the recent Uruguay Round of GATT it was disappointing to me to see that there was very little recognition of the relationship between trade and environmental destruction or trade and poverty. Those linkages need to be very clear in future negotiations on trade, both in terms of national policy and international negotiations regarding harmonization and standards and so forth. We must begin to have trade policies that really deal with poverty issues, and that do not foster further environmental destruction as much of trade is now doing.

Finally, we don't hear much about the debt issue in the 1990s, but it's still a huge barrier to sustainable development. Despite all the talk and efforts in the 1980s, this problem has not gone away and needs more attention.

Would you say there needs to be a change in some policies pursued by the World Bank? Particularly in regard to structural adjustment?

I think so. Many of those policies have not served the interests of the poor. Many have not proved to be environmentally sound. Many of the large capital projects that the bank has tended to fund have not proved themselves economically and certainly not environmentally. And often they have not benefitted the poorest of the poor, which is really what the bank's bottom line should be. So, a rethinking of the types of projects, and how to evaluate projects is needed to make sure that the poorest of the poor are being served by them and that they are environmentally sound. The rhetoric is there, but in terms of lending, we are not seeing enough of a shift within the Bank.

In terms of population and consumption, could you explain how the environment is being affected?

If we look at the per capita use of energy, water, paper or wood – virtually all the basic resources that are central to a modern industrial economy – it is far higher in the wealthy countries than in the developing countries.

So, we need to look at our fiscal policies, and I mentioned environmental taxes as one, and also at a redirection of technology to get more service out of resources by using them more efficiently. We have seen, for example, that we have the technologies available to meet our food, industrial, with much less water than we use now with current technology. But the policies are not in place to promote them. However in Israel for example, water use per acre of cropland has dropped 36 per cent over the last couple of decades thanks to new technologies and policies. ■

State of the World 1994 *is published by W.W. Norton, New York and Earthscan, London. $11.95/£9.95.*

Learning from Ladakh

In the first of an occasional series on cultural and spiritual insights into issues of sustainable development, *Helena Norberg-Hodge* **reports from the Buddhist Kingdom of Ladakh.**

Dolma was 25 when she married Angchuk, a young man from the village downstream. Dolma's marriage, like many others in Ladakh, is polyandrous. She is also married to Angchuk's younger brother, Angdus. A third brother – a monk in the local monastery – remains celibate.

Polyandry has traditionally been the preferred form of marriage in Ladakh. By reducing the number of married women (and boosting that of celibate Buddhist nuns) it has been one of the most effective means that Ladakhi culture has evolved for keeping its population stable.

Ladakh, a desert region on the Tibetan plateau, is culturally Tibetan but politically part of India. Most of the population is scattered in villages in rugged valleys, where glacial meltwater is used to irrigate barley crops, a few vegetables and fruit trees. Goats and *dzo* graze at shared pastures near the slow line during the summer months. Until 20 years ago, population growth in Ladakh was very slow. People were conscious of the fact that *this* piece of land is where the food comes from, *this* pastureland is where the animals graze. They could clearly see the limits of that land and were conscious that they needed to adapt their numbers and their practices to that limited resource base.

The Buddhist religion has been an important factor in the balance between people and nature in Ladakh. Usually at least one member of the family will become a nun or monk, positions which are accorded a good deal of respect in Ladakhi society. Although the males go to monasteries, most nuns live at home and remain involved in the life of the extended family.

These and other traditional practices which stabilize population have been increasingly undermined since 1974, when the Indian Government opened the region to tourism and 'development'. Between 1901 to 1911, for example, the population grew by 3 per cent; from 1971 to 1981, it shot up by 31 per cent – many times higher than the Indian national average.

The conventional wisdom is that Western-style development is the solution to population pressures in the South. My own experience of Ladakhi society has convinced me that, on the contrary, population explosions come *with* development and modernization. In Ladakh, I saw how the new monetary economy cut people off from the earth. In the traditional village, people can see with the naked eye how many mouths the land can support. In the new urban economy, much of the food is trucked in from the other side of the Himalayas at highly subsidized prices. In this modern economy, the birth rate can appear to be irrelevant: more money will simply buy the extra food needed. And unlike the finite land and water on which the Ladakhis traditionally depended, it appears that money can be multiplied infinitely. An advertisement for the local Jammu-Kashmir Bank says, "Your money grows quickly with us."

Important psychological changes have also come with development that add to Ladakh's population boom. When I arrived in Ladakh 20 years ago, I had never met people who seemed so healthy emotionally, so secure as the Ladakhis. In the traditional village, the whole way of life and world view is rooted in the Buddhist philosophy of *sunyata*: nothing exists in isolation, but only as a web of relationships. This sense of being inextricably connected with others and with one's surroundings is experienced throughout daily life in traditional Ladakh. People depend on others they know personally – family, neighbours, friends. On a village level, people grow food for their own needs, make their own decisions,

Child monk at Thiksay Gompa in Ladakh.

and are unaffected by the fluctuations of world markets or the edicts of distant bureaucrats. Everything from farm work to birth, marriage and death is a community affair. Mutual aid rather than competition shapes the economy, and disparities of wealth are minimal.

This is all changing in the modern parts of Ladakh. With the illusion of unlimited resources has also come a loss of control over one's own life, as the economy is increasingly controlled by distant forces. Local communities are breaking up through economic pressures that undermine farming and village life, pulling people into concrete 'housing colonies' in the capital. Survival now depends on acquiring jobs, which are extremely scarce. Insecurity and competitiveness is fuelling conflicts between the ethnic groups vying for jobs and political power. This in turn is leading to population growth: in the modern economy, it is actually to your advantage to have more children, to increase your group's political and economic power. I've seen this happen, not only in Ladakh, but in Bhutan and Kashmir, where a highly competitive modern sector puts different ethnic groups in competition for access to resources, jobs, money.

The Ladakh Project is trying to counter to these changes by bringing information to the Ladakhis about the real costs of conventional development. We are also working to debunk many of the idealized images of life in the West that have proved so destructive of individual and cultural self-esteem. We are thereby helping to reinstall a sense of the value of Ladakh's traditional culture. Along with the indigenous organization we helped to found, the Ladakh Ecological Development Group, we are working to forge a development path based on local resources, on the decentralized community-based economy, and on Ladakh's own ancient foundation. ■

Helena Norberg-Hodge is a founding member of the Ladakh Project and director of The International Society for Ecology and Culture. She first went to Ladakh in the early 1970s as a linguist and has been working there on development issues ever since. She is author of Ancient Futures, Learning from Ladakh *published by Sierra Club Books, also available as a film from ISEC, 21 Victoria Street, Clifton, Bristol, BS8 4ES, UK.*

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Viewpoint:

James Gustave Speth

SPECIFIC TARGETS

Education
Basic educatiion for all. Adult illiteracy reduced by 50%, with female illiteracy no higher than male

$5–$6 billion*

Health
Primary health care for all, including complete immunization for chiildren
Reduction of under-five mentality by half or to 70 per 1,000 live births, whichever is less.
Elimination of severe malnutrition and 50% reduction in moderate malnutrition

$5–$7 billion*

In this personal contribution, written specially for *People & the Planet*, *James Gustave Speth*, Director of the United Nations Development Programme, calls for a new, all-encompassing, global strategy that will hasten the demographic transition, help meet the aspirations of the poor and ease the pressures on the earth.

Towards a new global strategy

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Two girl children in Thailand.

We are now at the climax of a period of unprecedented population expansion. The generation now coming of age is the largest in history. While the *rate* of population growth peaked in the 1960s, the absolute *size* of annual increases in population is just reaching its zenith. Best estimates indicate that, during the 1990s, 830 million people will be added to the present global population of 5.5 billion. A similar number will be added in both the first and second decades of the next century.

This phenomenon raises the question: can economic development keep pace with such rapid population growth? The sobering answer is that, for far too many of the world's people, already low living standards have remained stagnant or even declined over the past 20 years. In 69 of 102 developing countries, food production in the period 1978-89 did not expand as quickly as population. We are faced with the frustrating situation that while overall rates of poverty, illiteracy, and malnutrition are going down, the numbers of people suffering continue to grow.

Containing explosive population growth is certainly essential to what we at UNDP call "sustainable human development", that is, development that not only generates economic growth but distributes its benefits equitably; that regenerates the environment rather than destroying it; that empowers people rather than marginalizing them. Owing to a complex set of interlinked relationships – involving education, health, the status of women,

Population
Basic family planning package available to all willing couples

$10–$12 billion*

Water
Universal access to safe drinking water

$10–$15 billion*

Total $30–$40 billion

*approximate annual additional costs

Finding the Funds
Funding for these additional expenditures need not require new and additional sources of development aid. There is considerable scope for redirecting current aid and expenditures to achieve these goals:

Reduce total military expenditures by developing countries ($150 billion per year) by a total of 20% by the year 2000

$30 billion

Reallocate official development aid ($50 billion per year) to devote 20% to priority human development before the year 2000

$10 billion

Source: Human Development Report 1994

and other factors – enduring declines in fertility can only be achieved in the context of high levels of sustainable human development.

The stresses exerted by rapid population expansion on economic, social and environmental support systems have come to be widely recognized, not least by the poorest of the developing countries. There growth rates are fastest, and resources needed to cope with the consequences are scarcest. Indeed, 85 per cent of the people of the developing world now live in countries where the government considers fertility to be too high.

Among the national reports received for the International Conference on Population and Development, to be held in Cairo in September, several cite population dynamics as the single most critical factor determining the direction and speed of their socio-economic development. These countries are looking to the Cairo Conference for insights and practical suggestions on how to integrate population and development concerns into their overall national planning and programming systems.

Besides its impact on development, fertility is an issue of human rights. Having access to both the information and the means to control one's own fertility has been recognized as a fundamental human right for more than 20 years. The ability to determine the number and timing of births confers important benefits on both mother and child, and on society as a whole.

Sadly, one hundred million women, or one in every six women in the developing world (excluding China), who would like to use family planning services have no access to such programmes. In regions where the unmet need is concentrated, such as sub-Saharan Africa, the figure is nearer to one in four women. These are conservative estimates, since they count only women who are not using any contraceptives at all, and not women who require substantially better family planning services than they are now receiving.

What are the implications of these findings for effective policy responses and for international cooperation on population and development?

JENNY MATTHEWS/IPPF

Learning about 'family life' in Ethiopia: a secondary school class run by the family planning association (FGAE).

The evidence indicates that fertility declines are achieved by a confluence of circumstances of which access to family planning services is only one, though a very important one. John Bongaarts of the Population Council has estimated that providing the means for all unwanted births to be prevented after 1995 could potentially reduce the population size of the developing world by 1.1 billion (from 8.6 billion to 7.5 billion) in 2050, and by almost 2 billion (from 10.2 billion to 8.3 billion) by 2100. While this is a purely theoretical upper limit rather than a projection of what realistically could be achieved, these findings highlight the importance of the global objective of providing every willing couple with access to high-quality, affordable family planning services.

It is not enough, however, merely to meet existing demand for family planning services. We must also work on the demand side of the equation. Desired family size in the developing world – ranging from an average of three or four children in North Africa, Asia and Latin America to nearly six in sub-Saharan Africa – is still far above replacement level. Estimates indicate that reducing fertility to two surviving children per woman after 1995 could reduce population size in the developing world by 600 million in 2050 and by 1 billion in 2100.

How can the predicted transition to smaller family size be hastened? It is worth noting that in many places the transition has proceeded relatively rapidly. It took 58 years for the United States to move from a fertility rate of 6.5 to 3.5 births per woman. In Indonesia, Colombia and China, it took 28, 15 and 7 years, respectively, to accomplish the same thing.

A variety of factors influence decisions about fertility. Many of them are directly related to how societies treat women, including the educational opportunities open to women and girls, and women's access to employment and property markets. Raising the economic, legal and social status of women influences fertility decisions in several ways, including an increased value on women's non-maternal roles, decreased preference for sons, and women's enhanced ability to take advantage of family planning options. Increased education – for both boys and girls – shifts the preference for large families, since smaller families can invest more per child in education.

Education also affects child survival, another important factor in fertility decline. Each additional year of maternal education reduces child mortality by 7-9 per cent. In no country has the

Left: *Many of today's children labour for their living, in menial tasks such brick crushing, as here in Bangladesh.*
Below: *Others do not survive. This child's coffin is being taken for burial across a river in Zambia.*

HELDUR METOCNY/STILL PICTURES

transition to lower fertility preceded a sharp drop in infant and child mortality. Increased child survival allows families to forego having 'extra' children in order to end up with a family of the desired size. Families also are more likely to invest resources per child if they are confident that each child will survive.

In focusing on the *number* of children per family, we often forget about the crucial importance of the *timing* of births. Because of the tremendous momentum already built into the dynamics of population expansion, it is equally important to encourage women to delay childbirth until their early twenties. With no change in the age of childbearing, population momentum alone (assuming population growth drops to replacement level immediately) will be responsible for increasing population by 2.8 billion people between 1995 and 2100. If the average age of childbirth were to rise by 2.5 years over the period 1995-2020, the impact of population momentum would be reduced to 2.2 billion. If the rise were five years, it would be reduced to 1.6 billion.

The most effective way to bring about this shift would be to provide women with greater educational opportunities. Already, developing country women with secondary educations marry later (at an average age of 21 years versus 19 years for women with primary educations and 17 years for women with no education) and have their first child later (at an average of 23 years versus 20 years for women with primary educations and 19 years for women with no education).

TRYGVE BOLSTAD/PANOS PICTURES

Because population and development interact in such complex, interlinked ways, efforts to address these issues should reflect holistic, transsectoral approaches. A global strategy on population and development should encompass a wide spectrum of institutions – from multilateral and bilateral agencies, to national governments and non-governmental organizations, to local community groups. It should also reflect the variety of issues that interact with population and development, from the provision of family planning services, to education and health, to poverty elimination and job creation, and the advancement of women.

Two issues with special relevance to international co-operation on population and development are environment and migration. Migration does not affect global population projections, but the movement of large numbers of people can exert considerable and often unexpected pressures on the social and environmental support systems of particular countries or regions. Concerning population and environment, if prevailing patterns of consumption and pollution continue, population increase on the scale predicted by demographers will have devastating effects, including concentrated pollution in rapidly urbanizing areas and accelerated degradation of marginal rural lands.

An agenda as complex and as challenging as this requires new modes of international co-operation to focus development efforts on achieving high levels of sustainable human development. A step in the right direction is indicated by UNDP's 20:20 proposal, which suggests that developing countries should allocate at least 20 per cent of their budgets – and donors 20 per cent of their aid – to human development priorities. If this recommendation were taken up, it would release $30-40 billion per year *from existing resources* for policy interventions that would do the most to create the conditions of human security and sustainable human development that would accelerate the global transition to lower rates of fertility.

What is needed is a new system of shared international responsibility. We must move beyond one-sided conditionality to embrace global compacts stressing mutual roles and responsibilities. These compacts must reflect not only the priorities of the rich, industrial countries, but also the as yet unfulfilled aspirations of the poor majority of humankind – the desire to live in dignity and security, to be educated, and to have a decent livelihood.

There is still time for the peoples and institutions of the world to work together in a spirit of partnership to build such a future. But the time to act is now; every delay adds to the cost, not only in money terms, but more importantly, in human suffering. ■

The Cairo crunch

While Northerners berate Southerners at Cairo about excessive population growth, they are likely to get a message in reverse about excessive consumption. This issue seems set to run and run, possibly for decades. So let's take a crack at it here and now. This is *not* to say that Gadfly believes population growth is not a top-flight question. It is. But consumption growth is just as much of a high flier, and it needs just as much to be brought down to earth.

Because of prodigal use of fossil fuel in the United States (gasoline is cheaper in real terms than for 60 years, cheaper even than bottled water), population growth in the United States accounts for as much carbon dioxide kicked into the global skies each year as all the population growth in China and India put together.

The rich nations with 22 per cent of the world's population cause 74–87 per cent of major pollutants and consume 76-92 per cent of natural resources each year. The worldwide value of luxury goods is equivalent to two-thirds of the collective GNPs of developing countries. As Alan Durning pointed out in *How Much is Enough?* (Earthscan, 1992), the affluent one billion people at the top of the global pile have doubled their consumption of energy, meat, steel, copper and timber since 1950, whereas the one billion poorest of the poor, with a per-person annual cash income equivalent to what a rich-world citizen earns every week, have hardly expanded their consumption at all.

The one thing that has consistently increased among the 'bottom one billion' is their aspirations. The other three and a half billion Third Worlders also want to advance their level of living (or, for half of them, level of subsistence). International television and other media tell them how the rich world makes out, and they want their 'rightful' share. They hope that one fine day they too will enjoy affluence without end. Alas, that day will never come. Were they to match the consumption habits of the rich world, many of the Earth's stocks of non-renewable raw materials would not last beyond a decade or two – oil for a mere seven years. Worse, carbon dioxide emissions would heat up global climate to an extent that human life itself could be imperilled within a century at most.

But Southerners cannot be denied their just measure of economic advancement. They should be enabled to enjoy a lifestyle that meets basic needs, and then some – or rather Some. To gain an insight into what this would entail, consider some recent calculations by the former head of the World Bank, Robert McNamara. Suppose we accept the high United Nations projection of 14 billion people around the end of next century ('high' because it assumes we shall continue to fail to get to final grips with population growth). This would represent a 2.6-fold increase over the 1993 total. Per-capita consumption worldwide in the last quarter century has increased annually by 3 per cent; suppose that for the future we reckon on 2 per cent per year (hardly enough to enable many Southerners to leave behind their poverty). This means that total per-capita consumption would have to increase 20 times over, within a single century – surely beyond the sustainable capacity of the Earth if we carry on as we are with super-prodigal consumption by Northerners.

There are several answers to this imbroglio. An easy one is for Northerners to reduce their population growth to zero forthwith – 'easy' in that many countries can do so through the simple expedient of eliminating all unwanted births (and thereby relieve economies of sizeable outlays as well). An equally straightforward answer is for Northerners to do far more to help Southerners to slow their population growth (most Southerners are clamouring for increased assistance). Yet another answer is to produce goods that need far fewer raw materials and that generate far less pollution and waste. Technology has already produced many breakthroughs, though a good number of them (such as ultra-efficient cars) remain under-exploited because of insufficient consumer demand.

A fourth response, and a much tougher one, is to reduce consumption: to do more with less. There are a few signs that a few Northerners are already looking in this direction, as witness the declining inclination to stuff stomachs with red meat and a growing readiness to switch to health foods generally. But what is wanted most of all in the long run, in fact in the endless run, is for the rich-world citizen to question what she or he wants from this only one life. How about switching from an emphasis on quantity of livelihood to quality of life? How about pondering whether the good life truly lies with piling up ever-more goodies? Who on his death bed says he wishes he had earned more money so that he could consume more? Let's move on from the basic need to survive (now a matter of history) to trying to live a little – or even live a lot? And, thereby, to live together with the rest of humankind? ■

Associates' News

New magazine sponsor

The World Wide Fund for Nature International (WWF) has joined IPPF, IUCN and UNFPA as a major sponsor of *People & the Planet*.

This now provides the publication with the support of the two leading world conservation networks as well as the two most influential agencies in the population field.

WWF is the world's largest independent conservation organization with 28 affiliate and national organizations and over 5 million regular supporters. It aims to preserve nature and ecological processes by preserving genetic, species and ecosystem diversity; ensuring that the use of renewable natural resources is sustainable; and promoting actions to reduce pollution and wasteful consumption.

WWF's concern with the social aspects of conservation is not new. For six years, until 1992, it published a magazine entitled *The New Road*, serving a readership approaching 100,000. This was aimed particularly at the organization's Conservation and Religion network. Its broad remit included coverage of a wide range of social, economic, cultural and spiritual issues as they relate to the environment.

People & the Planet, with its focus on the health of communities and their environment, hopes to reach out to former *New Road* readers. With WWF's support, its extended coverage will include news of significant conservation activities within the various world religions. It will also seek to promote the debate on the ethical underpinnings of a world which can sustain a healthy balance between people and nature.

■ *WWF International, CH-1196 Gland, Switzerland.*

Africa to tackle unsafe abortion

Over 100 participants from 20 African countries and a dozen international agencies attended the IPPF Conference on Unsafe Abortion in Africa, held in Mauritius in March.

Every day, some 10,000 African women undergo unsafe abortions, and every day, many die. In some countries, as many as half the women seeking treatment for abortion complications are under 20 years old. Unsafe abortion is a major public health problem in Africa, and an important social problem. Even in countries, like Zambia and Ghana, where the law has been made less restrictive, unsafe abortions continue because women and health workers are ignorant of the law, or because of bureaucratic procedures.

By the end of the conference, 18 of the country delegations had produced action plans to try to reduce the toll of unsafe abortion in their countries, and all accepted by acclamation the 'Mauritius Declaration' committing them to tackling the "vicious cycle of unwanted pregnancy and unsafe abortion"; to strengthen family planning services; to increase the availability of good emergency treatment for post-abortion complications; to offer post-abortion counselling and contraception; to liberalize restrictive laws and minimize barriers to safe abortion; and "end the conspiracy of silence that has kept the full extent of unsafe abortion out of the public eye and the public conscience for decades".

■ *A Conference report is available from IPPF in English and French.*

AIDS in Africa

Attempts to predict the impact of AIDS on population growth in Africa are hampered by uncertainties about changes in fertility behaviour and future levels of HIV infection. Studies show that the epidemic is still in the early stages in most African countries and it is unclear just how high prevalence levels will rise before levelling off. Also uncertain is the impact of interventions to halt the spread of AIDS.

A report prepared by the Options project of the Futures Group, under the guidance of the World Bank's African Population Advisory Committee, weighs the results of current research and concludes that, on the present evidence:

■ AIDS is unlikely to cause negative population growth in any entire country in Africa.

■ AIDS is likely to cause negative population growth in some sub-national regions in Africa and might do so in a small number of major cities.

But no matter what the demographic effect may be, family planning programmes should still be supported, the report points out. Not only do family planning programmes provide choices about pregnancy and family size, but they also reach the sexually active population with messages, counselling and services to combat the spread of AIDS.

■ The Impact of HIV/AIDS on Population Growth in Africa. *Africa Population Advisory Committee. World Bank, Washington DC.*

Understanding youth

Two new reports on adolescent sexuality, reproductive health and contraceptive needs have been published in advance of the International Conference on Population and Development (ICPD) to raise the alarm among policy-makers of this neglected and increasingly serious aspect of family planning.

The first, from Population Action International (PAI) under the title *Youth at Risk*, sets out the available data globally and for selected countries on the extent and dangers of unprotected adolescent sexual activity. It emphasizes, quoting the World Health Organization, that there is no evidence that sex education and contraceptive counselling lead to increased sexual activity among young people.

The second, from the International Planned Parenthood Federation (IPPF) under the title *Understanding Adolescents*, also summarizes available evidence of the young ages at which adolescents today start to become sexually active and the consequences for the life and health of young women.

Both reports acknowledge that sex education for young people remains a controversial issue for governments. Family planning programmes are mainly aimed at married couples and there are laws and taboos in many countries that make it difficult to offer the same services to unmarried youth. But innovative projects by non-governmental organizations, however successful, do not go far enough. The need becomes more urgent with increasing exposure to sexually-transmitted diseases, especially AIDS, to which young women are more vulnerable than young men.

The costs to society of ignoring the needs of young people are enormous, measured in lack of education and employment opportunities and the burden of medical and social care.

Both PAI and IPPF offer guidance on methods suitable for young people. PAI has laid this out by method in the form of a wall chart. Successful approaches in various parts of the world are quoted. The need to link sex education with the availability of contraceptive advice and supplies is stressed.

■ Youth at Risk – Meeting the Sexual Health Needs of Adolescents. *Population Action International, Washington DC.*

Understanding Adolescents – an IPPF Report on young people's sexual and reproductive health needs. *IPPF, London. This report is also available in French and Spanish.*

FILMS

Deception and democracy

Since Noam Chomsky starred in a three-hour documentary, entitled *Manufacturing Consent*, two years ago, the production has been widely shown in the industrialized world. Now a video version is being made by the British Film Institute and will be distributed in developing countries by TVE. *Jenny Richards* reports.

Free access to information is a prerequisite for democracy: without knowledge and understanding of the areas in which governments operate, people can't make informed choices about how they would like their representatives to govern. In the 1990s voters in most of the industrialized world take the freedom and impartiality of the media for granted – but should they? Not according to Massachusetts Institute of Technology professor Noam Chomsky – political philosopher and linguist, turned activist and favourite *bête noir* of the US Establishment. He's the 'star' of this extraordinary documentary.

Chomsky argues that deception has become the essence of democracy today, and that the 'agenda-setting' media – major newspapers and TV networks – actively connive with the established elites of government and big business to restrict the range of information and opinion available to ordinary citizens. By over-simplification and the creation of what he terms 'necessary illusions' in the media, they have succeeded in setting the parameters of what is regarded as acceptable, 'liberal' debate – in other words, in 'manufacturing' a large degree of consent with the majority of the electorate. After all, he points out, most media are owned by major corporations: in the United States alone, just 23 corporations own 50 per cent of businesses engaged in television and newspaper production. The corporations controlling the media control the way key political stories are covered.

It's a controversial thesis to illustrate, but directors Peter Wintonik and Mark Achbar do it with pizazz, wit and bravura. They filmed Chomsky for three years on his travels round the world as he talks on Japanese TV, publicly debates press freedom with the

Dutch defence minister, and defends himself on television against the elegant sarcasm of the smiling right-wing pundit William Buckley Jnr.

As working examples of how the media deliberately distort and marginalize important political stories, the film contrasts coverage of the Gulf War (in particular, US coverage of the War), and the Indonesian occupation of East Timor. The role of the media prior to the Gulf War should, Chomsky maintains, have been wide-ranging, looking at every option available for a peaceful settlement. Instead, it was monolithic, presenting uniform and uncritical support for the Bush administration's stance against Iraq.

For the film's second case study, Chomsky and other media analysts take the coverage given to Cambodia prior to 1975 after US bombing, and during the genocide instituted by the Khmer Rouge in Pol Pot's regime. They compare this with the media coverage of Indonesia's illegal invasion of East Timor in 1975 and the genocide of the Timorese that followed, allegedly supported by massive US arms shipments. It's a telling exercise, graphically underlined when Wintonik rolls out the actual column inches of news in front of a row of silent cameras: just 70 column inches devoted to East Timor from 1975-79, as against 1,175 to Cambodia.

Manufacturing Consent breaks almost every accepted rule in the canon of mainstream TV production today. It's a documentary. It's over three hours long. It took five years to make. And it's gone on to be shown on virtually every TV station in the industrialized world, to packed audiences in festivals and at cinemas and benefits from Bombay to California; to win dozens of awards and – most unlikely of all – to make money.

The international acclaim is more than deserved. This is an important film that underlines the key role that the free flow of information plays in creating understanding of the complex nexus between development, environment, health and human rights issues. Compulsory viewing. ■

Manufacturing Consent *was made in Canada in 1992 in English, French, Spanish and Portuguese and is distributed by the National Film Board of Canada.*

Forgotten issue

A Television 'Special' on the Population Issue to be premiered at the Cairo Conference on Population and Development is currently being filmed by North South Productions with the assistance of UNFPA, Population Concern and IPPF.

Called *Conspiracy of Silence*, the film will ask why population is the 'forgotten issue' and why the global community is not moving fast enough to tackle the rapid growth in human numbers which threaten to overwhelm the world's resources in the next century. Going beyond the issue of human numbers, the film will also show how the family planning agenda has broadened in recent years to embrace reproductive health and the education and empowerment of women.

The key message will be that women-centred family planning and reproductive health policies are starting to work and must be made to work faster and on a global basis, if there is to be a sustainable future on Planet Earth.

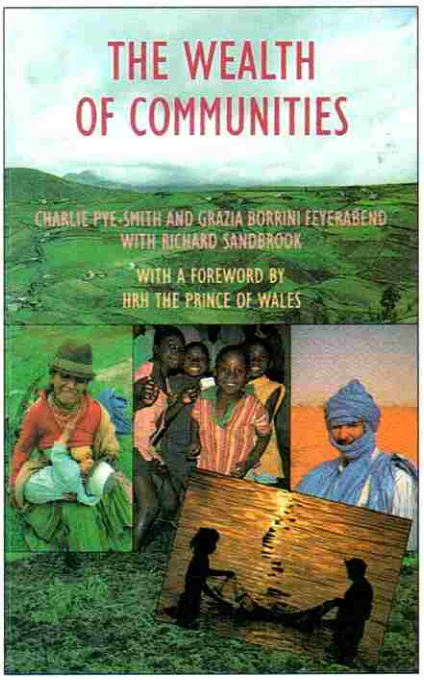
■ In advance of ICPD, IPPF is making available to programme makers a cassette of uncut video footage, shot by North South Productions, on population and development, including interviews with prominent experts. Contact Public Affairs Department, IPPF London.

BOOKS

Agents of change

The Wealth of Communities
Charlie Pye-Smith and Grazia Borrini Feyerabend with Richard Sandbrook
Earthscan, 1994. £10.95

These travellers have journeyed from the Philippines to Poland, from Los Angeles to Zimbabwe to record the stories of 10 communities, who have succeeded in the intelligent use of the natural resources they depend on, while caring for their local environment. Whether reviving depleted fisheries, finding novel ways of using waste, controlling industrial pollution or replanting forests, common themes run through their well-told tales.


THE WEALTH OF COMMUNITIES
CHARLIE PYE-SMITH AND GRAZIA BORRINI FEYERABEND WITH RICHARD SANDBROOK
WITH A FOREWORD BY HRH THE PRINCE OF WALES

One strand, picked up in the Foreword by the Prince of Wales, are the shared values of caring, bravery and devotion; here are people who do not turn back because there is "... no place to make a U-turn", avid re-cyclers for whom "rubbish can be inspirational stuff", and small fishers who fight off poaching trawlers with toy guns. At the roots of everything well done, the authors find generous people.

Another is the strength of people's science. In the marshes of Calcutta, there are the wonderful Mudialy Fishers, who purify sewage in an array of tree-lined banks and derive a rich harvest of fish; in the jungles of Costa Rica, there is a nursery-hand who can recognize 60 species of trees at seedling stage, more than most botanists.

For successful primary environmental care, prerequisites are participatory local institutions, capable of learning and growing organically, with authority and responsibility to care for local resources, linked to regulated markets that work for the people. The fourth strand is appropriate and innovative technology, mostly indigenous.

The writers' forte is incisive descriptions of the physical environment. Their weakness, the fleeting nature of interaction with the concerned communities. One needs to live for months in the locale, as one of the people, before they will share the intimate details of their arrangements for resource allocation – surely a key to sustainability.

The authors' describe colourful agents of change, but fail to capture their specific roles: as ideologues, pushers, fine-tuners, early adopters and internal change co-ordinators. Nor do they discriminate between communities still unfreezing, on the move, or in a new balance. As such, after documenting 10 inspiring stories, their concluding chapter does not provide the insights it could have done.

This is, nevertheless, a book designed to be widely read. It will appeal to all those with an interest in improving their environment and their local economy. It carries a message of hope.

Ayub Qutub

Syed Ayub Qutub is President of the Pakistan Institute for Environment-Development Action Research.

The Cairo prize

World Population: Turning the Tide – Three Decades of Progress
Stanley P Johnson
Graham & Trotman/Martinus Nijhoff, London/Dordrecht/Boston, £65/$105 hardback, £20/$32 paperback

This weighty (350-page) tome, is an invaluable record of the international community's struggle to come to terms with the population issue over the past 25 years.

Its strength lies not in the reporting of what has actually happened on the ground, in terms of projects and programmes, but in the careful monitoring of how the debate has waxed and waned in international fora – and in documenting the broad demographic fallout from the resulting policies.

Johnson is particularly good at picking through country statements and conference documents to show how policy has shifted and attitudes changed. In this respect, his chapter on the treatment of population at the Earth Summit in Rio is very useful. For all the downplaying of population in parts of Agenda 21, he shows how much attention individual countries did, in fact, give to this issue.

Turning to the Cairo Population Conference, he sees a chance, at last, for the world to reach a consensus on population which has so far eluded it. If so, and if the resources needed to achieve the goals set out for 2015 are 'bankable', then there is every chance, he believes, of attaining the reductions in infant and maternal mortality, the increase in educational opportunity and the access to family planning and reproductive health that will stabilize human numbers along the UN's low trajectory.

It is a huge and wonderful objective. And a very big if.

John Rowley

The PPE spiral

The State of the World's Children 1994
UNICEF/Oxford University Press, £4.50/$8.00

This latest UNICEF report breaks new ground in attempting to relate the wellbeing of children to the broader mutually reinforcing problems of persistent poverty, rapid population growth and environmental deterioration.

In a valuable chapter on what it calls the "PPE spiral" it warns that the Cold War years have seen "a colossal diversion of financial, human and natural resources to essentially unproductive purposes" – with an equal neglect of human and environmental problems. As a result, present population growth rates could quadruple the number of the poor within a single lifetime.

The report sees the worst aspects of poverty as the impetus for the PPE spiral: lack of progress in health care, the lack of status and opportunities for women, the lack of minimal security, the lack of investment in basic services and the lack of family planning information and services. It is here that the search for comprehensive solutions to our PPE problems must begin.

John Rowley

World Population: Turning the Tide - *Three Decades of Progress*

Stanley Johnson, Coopers & Lybrand
Foreword, **Nafis Sadik**, UNFPA

Provides a rich analytical account, from the 60s to the present, of the growing consensus of the international community in the face of the population problem. It seeks to articulate the full complexity of the debate and to locate the population question firmly in the nexus of the "population-environment-development" triangle. The book accompanies analysis with citations of the relevant documents and sources and is supplemented by a wealth of demographic tables, graphs and annex material. It is required reading for all those interested in population, environmental and development issues.

May 1994; 240x160mm; Pages: 350
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Hard: 185966 046 0 - US$105/£65

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